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Nº 15 - 1980 GREAT BRITAIN 85 p - CANADA $2,95

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Grand Prix

185 000 copies of this issue have been published.

N° 16 (SOUTH AFRICA) WILL BE ON SALE ON MARCH 10.

GRANDE PREMIO DO BRASIL

SILENCE IS GOLDEN

A breach in the wall of scepticism which surrounded Renault's turbo idea appeared for the first time at Dijon last year. Following the Brasilian Grand Prix, that wall must surely have practically disintegrated, Renault's turbocharged car won in South America on a circuit that is hard and testing, and it was virtually undisputed victory. And beyond the scepticism, one can almost already perceive a certainly amount of satisfaction - and worry. Ferrari, Alfa Romeo and Talbot are already working on turbocharged engines, and will no doubt be encouraged in their endeavours by Renault's success. On the other hand, there is worry for those, who, to various extents, see their future as being one where they are battling against an expensively developed turbo. The latter are mainly those teams using Cosworth engines. And for those worried men, the problem of equivalency still exists. A boosted engine (such as a turbocharged engine) has a capacity limit of 1500 cc, whereas a normally aspirated engine is limited at three litres. What criteria decided this equivalency coefficiency of two ? Some find these criteria ridiculous. FISA and its president Jean-Marie Balestre find themselves caught in the middle, and won't even commit themselves to any sort of change of regulations even in 1983. In contrast to his silence over the Interlagos affair, one could praise Balestre for this silence, because Formula One should remain a field of technological research and development, as well as a sport.

GRAND PRIX INTERNATIONAL LONDON OFFICE : Michel Koening Group Print House, 24/32 Pottery Lane LONDON WII. Tél. : 01 727 2734/2735. Telex : 21882. DISTRIBUTED BY
SEYMOURPRESS LTD : 334 Brixton Road-London SW9-7AG. Telex : 8812945 Seypress London. CHIEF EDITOR Eric Bhat. ASSISTANT EDITOR : Bob Constanduros. CONTRIBU-
TOR : Maurice Hamilton. ARTISTIC DIRECTOR : Marc Tournaire. EDITORIAL SECRETARY : Régis Lacroix. LAY out : Mathieu. ILLUSTRATIONS : Nicolas Géron. PHOTOGRAP-
HERS : Bernard Asset/A+P, David Winter, DPPI. Camera Canon. GRAND PRIX INTERNATIONAL is published by S.N.E.P. PUBLISHING DIRECTOR : Michel Hommell. ASSIS-
TANT DIRECTOR : Gérard Lips. EDITORIAL ADMINISTRATION : 7, rue de Lille, 75007 PARIS; Tél. : 260.34.65. ADVERTISING : Profil 18/30, 7, rue de Lille, 75007 Paris, Tél. : 260.34.65.
COMMERCIAL DIRECTOR : Philippe Méchin. PHOTO SETTING : Typo-Elysées, Compotronic. PHOTOGRAVURE : AGS DISTRIBUTED IN ITALY by : ME.PE. via Carcano 32 20141
Milano. Tél. : 02/8438141. DISTRIBUTED IN GERMANY : WE. Saarbach GmbH 5000 Köln 1. Postfach 10 1610 Follerstrasse 2. Tél. : 0221/244631. Telex : 8881067. DISTRIBUTED in
France by : NMPP. Distributed in Belgium by : A.M.P. 103, rue de la Petite-Ile, Brussels. DISTRIBUTED in Argentina, Brazil, South Africa, Canada, U.S.A., Holland, Spain, Switzer-
land, Sweden by : G.I.H. PRINTED IN FRANCE by : SARI, Montlouis, Clermond-Ferrand, SNIL/PPR. Commission Paritaire : 61611.

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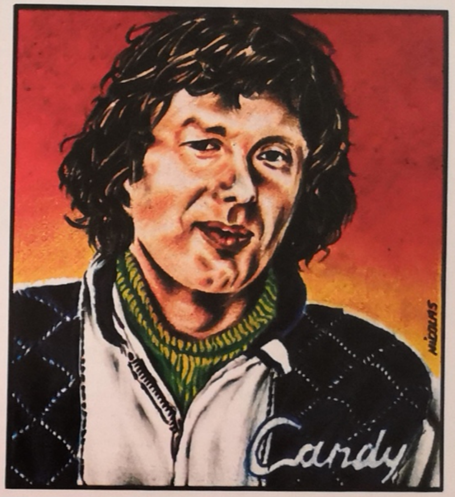


THE biggest change in the Candy Tyrrell team was not in the cars, nor the team organisation, but in Ken Tyrrell's views. An opinion that he's held for a long time suddenly seems to have been surpassed. His whole view of Formula One from his professional viewpoint has changed.

It's a very important change as far as Derek Daly and I are concerned because it means that our professional relationship with our patron has changed completely.

Ken and I were dining the other evening with M. Fumagali, the managing director of our sponsors Candy. As this gentleman doesn't speak English, I was acting as interpreter. He asked us why we weren't getting the results currently, what was the situation. Well, to my utter amazement Ken blamed it all on the cars, saying that 009 was now out of date and that our hope should now rest on the new car, the 010 which should appear for Kyalami.

What had caused this transformation in our patron ? I don't know, but for the first time ever, he had stated that he recognised that Formula One was now a matter of cars, and no longer drivers.

Ken has always been very influenced by Jackie Stewart. And according to him, until now, the driver has always been responsible for everything. For him, the younger generation has no champions. Not even Niki Lauda was a champion in his eyes. His maestros are Fangio, Mass, Rindt and most of all Stewart. He could even win in a bad car thanks to his talent and determination. There have been times when Ken has reckoned that Jackie would win in 009.

Now Ken may no longer reckon that there are any great drivers, but if there were, he also appreciates that they wouldn't be able to show their talent. Cars are now the dominant factor, not drivers. Any reasonable racing driver would set the same time at the limit in the same wing-car. In that type of car, there is a limit, and once that limit has been reached, it's quite impossible to go any faster.

Last year, when I was running withPironi, we would be trying our utmost to set a time during private or official practice. We'd both take risks and in the end, we'd be seperated by a couple of tenths of a second. Even though we weren't at the front of the grid, it simply wasn't possible to go any quicker.

At the side of the track, Ken called us in shortly before the end of the session and slipped this little sentence to us : ***« Now you can set a time ».*** Ken reckoned that when we'd been driving as quick as we could, on the limit and beyond, that we were still setting up the cars in order to do a time at the end of the session. When we explained to him that it was impossible to go any quicker, he didn't believe us, and reckoned that we were simply slow drivers. Stewart, according to him, would be on the front row.

I repeat that Formula One as it now stands simply leaves nothing up to the driver apart from the basics. Performance is synonymous with the right design. If the car is good, then all will go well, if not, well, there's absolutely nothing that can be done, whether the driver is Stewart, Lauda or anyone else. That's what's happened to Formula One. Having never had particularly good cars, I've been in an ideal position to judge this development. I know that when I was driving the Shadow a few years ago - and that wasn't a particularly good car - I was able to make up for its deficiences by driving it well. That's how I finished third at Monaco and set pole position here at Interlagos. The cars were less sophisticated, rather more basic, it was harder to find their limit. At that time, one could compensate for the car's deficiencies with driving skill. That's how Stewart could shine through no matter what the car was like. One had to work hard, and drive well. But development has been too fast, and nowadays it's all gone haywire. To succeed in Formula One these days, you have to be driving a successful car. If the basic car is good, then the engineers and drivers can work well together. But if the car is bad, you can have the best engineer and the best driver in the world, but you won't make much difference. You've simply got to start again, and when you think of the investment and the man-hours, that's expensive. Success is gained by a car that is well-designed from the word go full stop. All this currently applies to the Tyrrell team. If 010 is good, then we'll be back in front and that will be fine. The team as a whole will be satisfied.. If 010 is bad, then we'll have to start again and that will be catastrophic. That's it. Drivers, development, it won't make any difference if 010 is no good. We're just the same as any other constructor, relying on basic design.

I think that's a shame for the future of Formula One because it is a World Championship for Drivers. And a Drivers' Championship where a driver has no chance of shining because of his talent has no significance. It's bad for the drivers, but it's also bad for the public who can't understand this modern phenomena. Furthermore, it isn't even spectacular, wing-cars don't slide

Ever since I've driven in Formula One, I've never had a decent car for a whole season. Currently, I can't show my true potential. It's rather sad, because I think I've missed the opportunity now. I hope that 010 can change that. ☐

JEAN-PIERRE JARIER

The paddock in Interlagos

MEET ROBERT CHOULET

It was a different Robert Choulet who turned up at Interlagos. Choulet is technical director of SERA (Societe d'Etudes et de Realisations Automobiles). He used to be the dynamic whizz-kid, and looked it, but now his hair is longer and he's more relaxed. The French aerodynamicist made the trip to Brazil in order to supervise work on the Alfa Romeos, a team who have been working with SERA since 1972. So Choulet was again pushed into service on a race track, and he found it a relaxing proposition. *" I really feel ten years younger. I've been working closely with Depailler and the Alfa Romeo team throughout the weekend, just as I used to with Matra ten years ago. »*

— You must have seen all the cars. Which ones in particular have impressed you by their aerodynamics ?

" As I've been particularly involved with Alfa Romeo, I haven't really been able to look at all the cars close up. However, I've been able to watch them on the track and to guess at their maximum speeds, plus their handling with relation to suspensions movements such as anti-squat and dive, plus stability over the bumps. To judge cars within these parameters is interesting because they affect the cars handling at the entry to corners and also reactions at maximum speed. No two cars react in the same way. The Ferraris and to a lesser extent the Brabhams impressed me the most. "

— The Ferraris isn't really a proper wing-car.

" Maybe that's why it looks good. It didn't look as through it had the suspension problems I've mentioned. "

— Why do you think it is that the Williams and Brabhams are not as competitive at Interlagos as they were at Buenos Aires ?

" They seem to be slower. Interlagos is a circuit with particular characteristics, such as its rapid curves, but also its slopes, differing cambers and also the bad surface. For this reason, it's important to have a tough and rigid car in order to steer precisely. The lighter cars, such as the Williams aren't so good for that reason. "

— Which of the elements in the Renault do you consider the most important, the engine or the car itself ?

" The car is put together well, the whole works well and their engine now seems to be reliable. The Renaults accelerate well but their roadholding is not absolutely perfect. At the entry to the corner after the pits, there's still a lot of suspension movement, but maybe that's because they're going that much faster. "

— Why did you stop working with Ligier last year ? Did you have a disagreement with them ?

" It's a funny stroy, there are many parts to it, but one of the things we had to do was work in the wind-tunnel. But the main problem was that Ligier refused to work with us. They wouldn't combine work on aerodynamics with work on the rest of the car. Personally, I can't imagine not working on the aerodynamics at the same time as the mechanical elements. As they say in aviation, you have two sides, the aerodynamics and the elements of flying. The latter concerns stability, so you can't seperate the two. In order to work on suspension movement, that is to say handling, you have to work with the chassis people as well as the aerodynamicists. Ligier simply asked us to do detail work which was impossible considering the amount of background worknecessary. "

— And how do you think your weekend went with Alfa Romeo ?

" Our cars were less competitive with the leading cars during practice than they were during the race because we worked mainly to set them up properly. We were concentrating on setting them up for the race rather than trying to set a time. So the practice times of the Alfas aren't really representative of their race potential. During the race, the gap between our cars and the better cars was a lot less. But the most positive point is this : according to the drivers, we've managed to get the cars a lot easier to drive. Anyway, the Alfa 179 is still a semi-experimental car. It isn't a car with which we expect to win races. You'll have to wait for the third generation of Alfa Romeo Formula One cars for that. "

— You're working on that car at the moment, aren't you ? Is the V12 adaptable to a wing-car ?

" It's difficult because the V12 is heavier than the Cosworth engine. Furthermore, the water and oil temperatures are very important, more so than on other engines and so this involves a fairly extensive cooling system. That results in two handicaps : there's more weight because the radiators are bigger, and there's the aerodynamic disadvantage because the radiator surface is bigger. »

— And what about the mounting of the engine in the car ?

" The V12 is narrower than a V8. That at least is an advantage, but it still creates a couple of problems. Firstly, the V is more closed, which means that the centre of gravity is higher, and secondly, the engine is long, which makes it difficult to position in the middle of the car and obtain the best polar moment of interia. That in turn will create a handling problem. It's up to us to find the solution and compensate. But the V12 has the advantage of quite a few horsepower. "

— What exactly is your task in working with Alfa Romeo on their new car ?

" Alfa Romeo are of course in charge. We really work as consultants. Currently, it's absolutely essential to work on both mechanical and aerodynamic elements at the same time. So that's how we're working with Alfa, and that's how we should have been working with Ligier. The current project is centred around the V12. The turbo project hasn't yet been outlined. "

— What do you think is the Alfa team's main quality.

" Their broadmindedness. Any new idea that one suggests seems to be considered, they consider every possibility with the aim of building up a basic chassis-bodywork solution. I think my trip here has been very fruitful, because we've worked well with the team and that will benefit the future. "

FEBRUARY 14 IS T DAY FOR 010

The new Tyrrell is expected to be presented for the first time on February 14 in Italy. Tyrrell 010 will replace the scarcely competitive 009, which of course was based on the Lotus 79. It seems that the 010 will be similarly based on the Williams FW 07. The question remains whether Maurice Philippe can aerodynamically do for 010 what Patrick Head did for FW 07.

WILL MEARS REPLACE ZUNINO AT BRABHAM ?

Some members of the Brabham team are quite open about their doubts concerning Ricardo Zunino's capabilities. Bernie Ecclestone is considering paying off the Argentine driver and replacing him with the much-favoured Rick Mears from the United States.

GPDA SUGGESTIONS

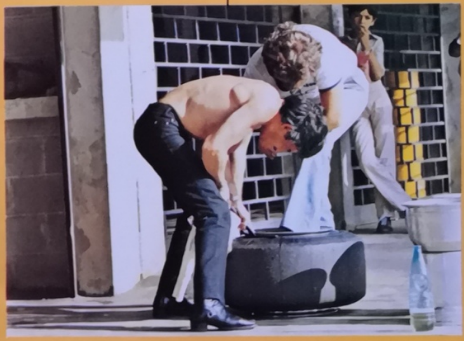
The Grand Prix Drivers Association met at Sao Paulo on the Thursday afternoon preceeding the Brazilian Grand Prix. Their principal reason for meeting was to decide on what suggestions Jody Scheckter and Jean-Pierre Jabouille were going to put forward at the FISA meeting in Paris during February. The drivers agreed on the following matters : reduction in the amount of aerodynamic downforce, in particular by minimising the dimensions of skirts, but not banning them completely which would favour the more powerful engines ; and reducing the size of the tyres. These measures are obviously intended to cut down cornering speed. Finally, the drivers also suggested safety improvements to monocoques. But note that these are only suggestions. It's up to Scheckter and Jabouille to convince FISA of their necessity.

FITTIPALDIS ''AT HOME ''

The Brazilian base of the Fittipaldi brothers is situated just outside the gates of Interlagos and consequently Emerson invited all of the teams to use the workshop for strengthening and reinforcement purposes. Renault, ATS and Brabham all accepted. The latter also strengthened their roll-over bars and modified the cockpits so that the drivers were better supported.

GETTING HIS HANDS DIRTY

It seems that Michelin's competitions manager Pierre Dupasquier is not afraid of getting his hands dirty. He may take important decisions, but he'll muck in with the best of them, practising what he preaches. Our picture comes from Brazil, but it's actually a few weeks old, taken during December when Renault were testing at Interlagos. Were the Michelin mechanics on strike that day or were they sunbathing on the beach ? Perhaps Dupasquier waded in to get rid of an unwanted Goodyear...



DE ANGELIS FOLLOWS JONES AS CANDY MAN

Candy's clean driving trophy is to be awarded again this year. The winner in Brazil was Elio De Angelis with 14pts who led Rene Arnoux (12), Alain Prost (10), Didier Pironi (10), Jean-Pierre Jabouille (2), and Alan Jones (1). Jones won in Argentina in front of Rosberg. After two races, the Australian is leading overall with 20 points.

EUROPEAN DEBUTS

McLaren will be entering M29Bs at Kyalami, but should have an M30 on the grid by the first European Grand Prix. Teddy Mayer was agreeably surprised that Alain Prost already had some ideas for the conception of the new car. The Fittipaldi team's F7 of course is really a transitory measure. Harvey Postlethwaite is currently working on a new car still with honeycomb monocoque which should be completely new. The F7 is basically a development of Wolf WR9 and uses the monocoque of that car. As with the M30, the team's new car should appear at the first European Grand Prix.

ON BOTH SIDES NOW

At one time it looked as though there would bea journalists' strike at Interlagos. The strike was threatened because non-IRPA photographers were being asked for $ 1000 to gain access to the pit lane. Fortunately it came to nought, but Bernie Ecclestone published the following statement :

" In order to clarify its position, FOCA wishes to make the following statement :

In almost every major sport, film and television rights are sold, while press access is free of charge. The reasons for this are : first, there is a basic difference between commercial exploitation and news coverage ; second, films and television allow the public to watch the event for themselves - almost like a paying spectator - while the press can only ever provide an illustrated account at second hand. There is an obvious and fundamental difference between watching something and merely reading about it.

Grand Prix Organisers who adopt this principle, have the support of FOCA. But FOCA will never agree to an Organiser seeking payment from the press or their photographers, and took immediate steps when an attempt was made to do this last summer in Europe. Press access must always be free of charge.

Rudio is a borderline case. FOCA believe that an equitable solution is to charge a fee to live commercial radio, but to provide all other radio access free of charge. FOCA will endeavour to persuade race organisers to adopt this policy.

Formula One depends on the media for its success. For this reason FOCA will at all times do everything in its power to assist press, radio and television and will urge all Organisers to do the same. "

The letter had Bernie Ecclestone's name on the bottom, who, in the case of the Brazilian Grand Prix, was also an organiser.

The RE 20 has lost weight, is more simple, and is more reliable. But overall, it's won.

ARNOUX-JABOUILLE :
A TEAM WIN

Jean-Pierre Jabouille virtually gave Rene Arnoux victory in the Brazilian Grand Prix. He did all the work on setting the car up during practice, and then retired on the 25 th lap when he had the race won. That doesn't lessen the Frenchman's achievement who had fulfilled his role as number two driver. In a way, Jabouille and Arnoux had taken a half-win each. Only that Arnoux's half-win had a bonus of nine points. Two weeks earlier, few people would have predicted the Brazilian result.

That great after-victory feeling, experienced by the Renault team for the second time in their recent history. Congratulations pour in, they're a popular team.

by Eric BHAT

I HAD confidence », a Renault mechanic told us the day after Rene Arnoux's victory at Interlagos. *« I had confidence because the Argentine and Brazilian Grands Prix reminded me a great deal of the Monaco and French Grands Prix last year. At Monaco we were a real disaster on the last row, and that was followed by a superb practice at Dijon and Jabouille's win. Argentina was a similar disaster for us this year, and then things went just right during practice. I was sure we were going to win »*.

The Renaults' performance was certainly dreadful at Buenos Aires. The French cars had five successive engine problems during practice. The reliability that the new Renault demonstrated in December when Jabouille did over 1000 miles in testing without any trouble seemed to have disappeared. But Gerard Larrousse wasn't worrying. *« The situation would have been a lot worse if the engine had suddenly shown signs of one particular weakness. But in fact it consisted of a lot of little things, none of which had any relation to one another, and they're quite easy to put right »*. Jean-Pierre Menrath, the engine man in the team, filled in the details for us : *« first engine : a piece broke in the turbo and blocked the oil pump. Second engine : had done its miles and wasn't broken, just not going as well as it might. Third engine : broke because of a problem with the clutch. Fourth engine : head gasket. Fifth engine : broken valve. All the others were fine ! »*

THE first lap of a season that Gerard Larrousse hopes will be victorious was scarcely encouraging. The Renaults held last and second last positions. It was a bad start, especially as the Renaults weren't to get much further. By the fourth lap, neither was running : Jabouille's clutch had broken and Arnoux suffered broken suspension. *« We're going to show that we can react*

→

quickly », declared Larrousse the evening after a disaster that did more to motivate his team than depress them.

We had to wait until Friday morning at Interlagos to find out that the Renault team had indeed reacted quickly and in the right direction. Jabouille was delighted after the session in which he'd set third fastest time, but the previous evening, there was little joy in the black and yellow camp following the first free practice session. *« It's like driving a car on ice, there's no grip »*, complained Arnoux who could still joke about it all the same. *« I must go and buy five kilos of grip ».* Jabouille was complaining that his single-seater was unstable. The two Renault drivers, in common with the technical brains in the team, were quick to accuse Michelin, pointing out that the Ferraris weren't quick either. *« The Michelins don't absorb the bumps very well »*, was the general opinion. But Pierre Dupasquier thought otherwise : *« it's amazing. They've got to work on the cars a little and adapt them to the track before complaining like this. We've scarcely done any tyre testing this winter because Ferrari wouldn't travel and Renault have been working on their car using the same tyre throughout. Now we have to catch up. We'll see tomorrow or the day after tomorrow whether our tyres are suitable or not. We can't really comment today ».*

THINGS certainly brightened up for the Renault team on Friday morning when Jabouille finally put his finger on the problem. He learnt in which direction he had to develop his car which began to show signs of improvement, boosting him from seventh to third quickest. *« For the first time in two years »*, he said, *« I've been able to do a whole session working in exactly the way I wanted ».* The Renault driver was referring to his unhappy working relationship with François Castaing, the engineer who was removed from the team this winter.

« A similar sort of thing happened to me in Formula Two at Estoril in 1976 », Jabouille went on. *« At the start of practice, I was completely outclassed. My car was unstable and jumping around on the bumps. I managed to set it up properly and finished second, and was consequently still in with a chance of winning the Formula Two Championship. I've done the same thing here. I made a few modifications both mechanical and aerodynamic in the right direction as in Estoril, and the car improved. You'll see this afternoon... »* Jean-Pierre was already thinking of pole position, and he was going to be using qualifying tyres.

And in the afternoon, everyone watched Jabouille who was simply untouchable. He did two timed laps, not one more, which were 2'26''2 and 2'21''4. No one did better. *« And I didn't even use the fastest qualifying tyres »*, explained Jean-Pierre, chatting away as he watched the other drivers form the side of the track as they tried, in vain, to approach his time.

RENE Arnoux, whose car was just as bad that morning as it had been the previous evening, adjusted his car to Jabouille's set-up for the first official practice session. And all that was meant to happen happened. The car was transformed and he provisionally put it on the front row alongside his teammate. The two drivers had worked perfectly together, Jabouille considering Arnoux much more a teammate than a rival. *« It's perfectly normal that I should set the car up for him because he's going to help me win the world Championship. I'd much prefer him to be beside me than behind me, because he can then take points off my rivals. Every since he'd been with Renault, he's always done the right thing, and there's no reason why I shouldn't treat him likewise. I've given him a present here, he'll have the opportunity to do the same thing elsewhere at some stage when I'm in need of it. My aim is to be World Champion. The closer he gets to me, the more he helps me. A teammate's useless if he's three seconds slower than his number one ».*

Neither Jabouille nor Arnoux improved their times the next day during the second qualifying session. Jean-Pierre used the hour and the security of having the fastest time from the evening before in order to try and improve the car's handling even more. He hadn't been able to do so in the morning as the track was still a little wet from a light shower of rain. When Didier Pironi got within three tenths of his time, Jabouille was informed of the fact by Michel Tetu. But he wasn't even tempted to put on qualifying tyres to try and open the gap up wider. *« It doesn't really matter if Pironi does go quicker. It's the race that really interests me, and that's what I'm working towards. This isn't Monaco you know, we can overtake here ».*

As for Rene Arnoux, his practice was a little less exciting, for the engine tightened up and he retired to the pits and waited there. His face grew longer as Pironi, Villeneuve, Reutemann and Laffite went quicker than he. *« That's only to be expected »*, he admitted, *« the track's a lot quicker today, the rain has cleaned it up ».*

THE night before the race, there is always one driver who thinks that he's going to win. There's feeling of confidence and impatience that is deep down inside him. One driver - sometimes more - from the 24 knows that he's going to win and it just cannot be otherwise. In Argentina, that driver was certainly Jones, and he won. In Brazil, it was Jabouille, but he didn't. His calmness the night before the race was indeed impressive. *« I'm super-confident. With a new engine and race tyres, I can do 22''5 at least, perhaps even better. That's to say that at worst I shall be further up than the Goodyear-shod cars. Furthermore I'm in form, I feel good. I've just spent eight days holiday with Jacques Laffite. We were like athletes from morning until night, and then I slept. When I feel in form, I see things in a better light, I don't get annoyed with little things ».*

16
René ARNOUX
RENAULT elf

Rene Arnoux, certainly a man with a future. After Brazil, more wins ?

JEAN P. JABOUILLE
Coca-Cola
elf
15
TISSOT
RENAULT
MICHELIN

Jabouille before the start. A win is still in his mind.

On Sunday morning, when Arnoux was perfectly happy with his lot, Jabouille was upset. One of the turbos had broken in the warm-up. His confidence took a knock, equally because he and Larrousse had a small difference of opinion. Jean-Pierre wanted to race in the spare which he tried after his turbo broke. *« I did a 27''6, second quickest time, and I was scarcely trying. Furthermore, I found it more comfortable than my race car when I drove it yesterday ».* Larrousse decided against it. Jabouille must start in his race car, the turbo would be changed. *« It's a question of safety »*, explained the director of Renault-Sports. *« A spare is always a spare, it's not so well prepared nor well checked as a race car. It's also done a lot more miles, and the engine has done over 150 miles. As the breakage in Jean-Pierre's car is isolated and repairable, I want Jean-Pierre to use his race car ».*

So he used the car, leading until the 25 th lap. But he knew that he was being threatened with retirement. *« I was worried after four laps for the turbo pressure dropped to 150 grams. The pressure stayed low for a long time, and then the turbo broke. So there you are, I've lost, I was really annoyed ».*

So instead it was Rene Arnoux who inherited victory and kept the flag flying for Renault. *« Everything went really well »*, he said, elated by the ceremony on the rostrum. *« The engine, the car, the tyres, the brakes, everything was tremendous ».* A perfect win.

There was quite a crowd around the Renault pit afterwards. Champange corks flew into the air. Making their way through the crowd around the pit were Frank Williams and Patrick Head, who congratulated Gerard Larrousse and Jean Sage. *« I'm really happy to have lost to Renault .*, said Frank. *« Anyone else and I would have been annoyed. But you, I've very happy for you ».* Then he added with a wink, *« Alan finished third. We're leading the championship ».* Battle has been joined between Williams and Renault. ☐

parmalat
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NELSON PIQUET

Last year's European Grand Prix season hadn't even begun yet Gordon Murray was already singing the praises of Nelson Piquet, his new young recruit in the Brabham team. During 1979, Piquet showed himself to be the equal of Niki Lauda, and this year has replaced him - twofold. Nelson has taken over Niki's number one seat in the Brabham team, and the responsibilities involved, and yet he seems to be a similar sort of person : thoughtful and pondering over the problems of racing, totally committed to competition, just as Niki was for so long.

YOUR SECOND PLACE IN THE ARGENTINE GRAND PRIX WAS YOUR FIRST REALLY GOOD RESULT IN FORMULA ONE. WERE YOU PLEASED WITH IT ?
Yes, it was very satisfying as it was for the whole team. We had a very bad season last year, almost certainly the worst ever for Brabham. I know that I wasn't personally responsible for that because not even Niki Lauda could finish races. The main reason for our problems was the Alfa Romeo engine which was 85 per cent responsible for our dreadful season. At least this year we've started off on the right foot. The car wasn't tremendously fast in Argentina, but at least we finished the race and we finished it well up.

LAST YEAR WAS YOUR FIRST FULL SEASON IN FORMULA ONE. DID YOU LEARN A LOT FROM NIKI LAUDA ?
I learnt more from working with him than he did working with me ! But really it was the team that taught me most. I spend eight hours of the day with them when I'm at a circuit, and I'm always going to see them at the factory during the week. Lauda, on the other hand, only devoted ten per cent of his time to competition. His business affairs took up a lot of his time. I learnt a lot last year, ten times more than I learnt in Formula Three. The team helped me a lot. It's thanks to that fact that I'm now number one driver, something that normally takes three or four years to achieve.

But to continue on the subject of Lauda, and to expand on your question, I would say that it's not really possible to learn a lot from another driver. When one is in one's car, one is alone, just as the other drivers are alone in their cars. We don't have much of a chance to talk to one another during a weekend, and it is hard to exchange views after the race. Of course, Niki and I exchanged ideas but I used to set my car up rather differently to his because I drive in a rather different way.

YOU DIDN'T ALWAYS SEEM TO GET ON TOO WELL TOGETHER.
That's not true. We worked hard, trying to ensure that everything was going well within the team. We tried to keep Gordon well-informed. But I wasn't one of Niki's great friends, nor in his circle of friends, for the simple reason that I'm a lot younger than he is. Furthermore, I only met him for the first time four months before the start of the season. Just because we were teammates it doesn't necessarily follow that we should be great friends. There's no point in establishing a false relationship just because you're in the same team with someone. Personally, I know the younger drivers better like Lammers, Daly or De Angelis, whom I've known since my Formula Three days.

YOU'VE JUST SAID THAT YOU SPEND ALL YOUR TIME AT CIRCUITS WITH YOUR TEAM, AND GO AND SEE THEM VIRTUALLY EVERY DAY WHEN YOU'RE BACK IN ENGLAND. WHY IS THIS ?
Because I enjoy it. It's only here, in Brasil, that things get difficult, because I'm constantly in demand. The Brasilian journalists are always asking questions, and because they don't know much about motor racing, 99 per cent of their questions are uninteresting. It's very annoying and I have just one thing in mind : to leave the circuit.

APART FROM THE PLEASURE OF SEEING YOUR TEAM, PRESUMABLY IT'S ADVANTAGEOUS FOR YOUR TO DISCUSS THINGS WITH THEM.
Yes, the advantage is that I can discuss things in much more detail with Gordon Murray at the factory because during practice sessions we have a lot less time When talking about things afterwards, we can discuss them in detail, what the car was doing under what conditions. Gordon and I talk a lot about the handling of the car.

IT WAS VIRTUALLY A YEAR AGO THAT YOU DEBUTED IN FORMULA ONE. TODAY YOU'RE NUMBER ONE TEAM DRIVER. HAS YOUR LIFE CHANGED A LOT ?
No, not at all. But there is just one little change, and that is that I have more money than I did last year. I'm earning more this year, so I can live a little better. I can go to England and find a house without having to worry about prize money and things like that. Last year I spent between 35 000 and 40 000 $ on air tickets and living expenses for my wife and child. But for the Procar races, I wouldn't have had that money. Naturally, I was glad to be in Formula One, but that's how my contract stood. This year things are a little better. Otherwise there's no difference.

ISN'T IT A BIG RESPONSIBILITY TO BE NUMBER ONE DRIVER IN A TOP TEAM ?
No, it's the same thing, I'm working this year in exactly the same way as I worked last year. I do what I want to on my car. It was the same last year, I was completely independent when it came to adjustments on the car. And often I was quicker than he was.

LAST YEAR YOU SEEMED A LOT LESS RELAXED AND LESS HAPPY THAN YOU HAD BEEN IN FORMULA THREE. WHY WAS THAT ?
Simply because it wasn't a very good year. Say Niki Lauda hadn't been the team leader, and my teammate had been a young driver like De Angelis, it's almost certain that Alfa Romeo or Ecclestone himself would have thought that it was the drivers' fault. But because Niki Lauda, twice world Champion, was in the team, it was obvious that the problem arose from the engines and not the drivers. It really was a hard season. I hope it will be better this year.

EVEN SO, YOUR SEASON WASN'T TOTALLY NEGATIVE, YOU LEARNT A LOT.
Yes, I did learn a lot, but if I'd had a Ford engine, I would have finished a lot more races in the points, and that wouldn't have stopped me from learning just as much.

YOUR TEAM MANAGER IS BERNIE ECCLESTONE. DO YOU FEEL YOU KNOW HIM BETTER THAN MOST PEOPLE ?
A lot of people think badly of Bernie Ecclestone. Personally I have nothing to say against him, in fact to the contrary : he's kept every promise he's made to me. He's never gone back on anything he's said. Everything is always very clear-cut.

WERE YOU A LITTLE TORN ON THE SUBJECT OF INTERLAGOS, BECAUSE ECCLESTONE IS INVOLVED IN THE ORGANISATION ? DID YOU VOTE FOR THE RACE TO GO AHEAD ?
I voted to race at Interlagos because I wanted to race in Brazil. It's my country. Generally speaking, Scheckter is 100 per 100 right in his views on safety, but in the case of Interlagos, not even safety reasons could stop me from racing. I came here last year with damaged toes following the Buenos Aires accident, and I couldn't race. This year, I have a chance of finishing in the first six. I've worked for ten years in motor racing. I don't want to miss this race for safety reasons. If there wasn't a Grand Prix at Interlagos this year, there wouldn't be one ever again.

WHAT IS IT THAT YOU APPRECIATE MOST AT BRABHAM ?
I really like being a permanent part of the team. They listen to me, we work together. Last year, I went along to all the wind tunnel sessions, I worked with the team in between races by going to the factory every day, and that helped my work at the circuits. I don't know if Ferrari, Renault or the other big teams allow their drivers to be so well integrated and to be so involved with all sectors at the factory.

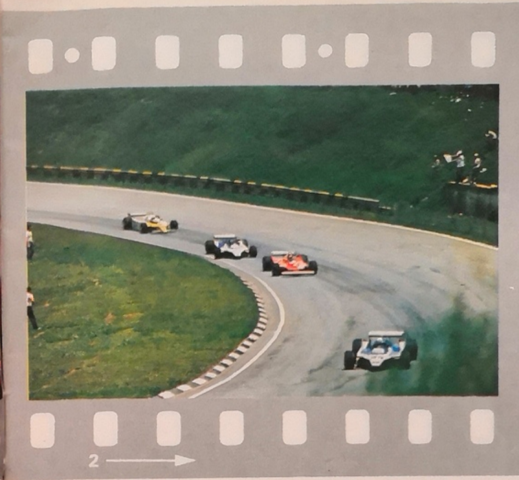
ON THE OTHER HAND, WHAT IS IT THAT YOU LIKE THE LEAST ?
We need a real test and development team, completely seperate from the racing side : a seperate car, team of mechanics, team manager, but the same driver. Perhaps we'll have one later this year.

ARE YOU AWARE OF YOUR FAME HERE IN YOUR HOME COUNTRY ?
Yes, and I don't like it. I want to get out of Interlagos as quickly as possible, because the people won't allow me to do what I want to. Everyone is trying to see me, talk to me, touch me. I'm discovering friends that I never knew. I prefered it as it was before. □

THE FILM OF THE RACE

Four Frenchman in the first four places - that was the situation after just three laps, for Villeneuve, who'd made the best start, had begun to drop back. The Renaults and Ligiers dominated the race at that time, but just one of them would cross the line without problems. That was Arnoux's Renault, and it took the chequered flag. Neither Williams, nor Ferraris, nor Brabhams could do anything about the French domination. Behin the blue and yellow cars, only Elio De Angelis really shone.

1 — The green light has just flashed on. Jabouille and Pironi hesitate and it's Gilles Villeneuve, in a cloud of smoke, who streaks through to lead.

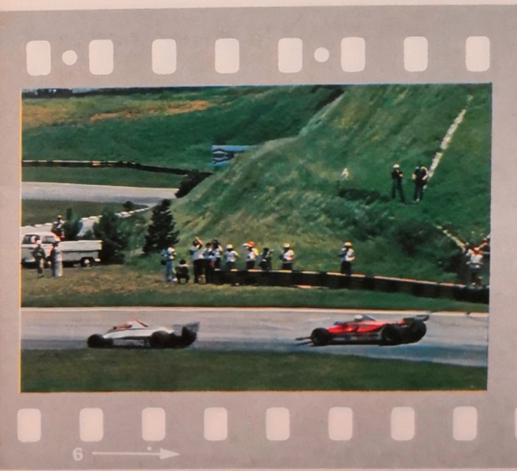


2 — On the second lap, Jabouille leads. He keeps it until after half-distance, the 25th lap.

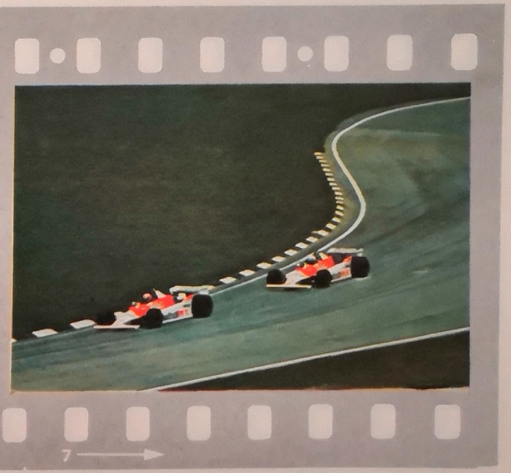
3 — After Jabouille, Villeneuve has to let Pironi through to second...

4 — ... and a few metres later, Laffite overtakes the Ferrari too.

5 — Still on the second lap, the second bunch is led by Patrese, from Piquet, Regazzoni, Mass, Prost and Fittipaldi.



6 — Piquet catches up after a bad start. It's the eighth lap and the Brazilian has just taken sixth place from Scheckter who is about to pit for a tyre-change.



7 — Alain Prost's engine isn't pulling properly and Watson overtakes him on the third lap. We're now on the ninth lap, and Prost is about to get his own back.

VILLENEUVE AND THE TWO LIGIERS LEAD THE RENAULT

JEAN-PIERRE Jabouille and his Renault completely dominated the first qualifying session on Friday afternoon. Jabouille scarcely covered six laps of the circuit, in fact only two flying laps during which he did a 2'21''40, which was good enough for pole position. Beside, completing an all-yellow front row in this first session, was Rene Arnoux in the second Renault.

Jabouille scarcely bothered to improve on his time the next day, prefering to continue setting up his car. The track, however, was considerably quicker than before thanks to heavy rain which washed it clean allowing Pironi, Villeneuve, Reutemann and Laffite to improve their times. They were all quicker than Rene Arnoux who did very few laps because of a tightening engine. Pironi looked as though he was the only one capable of taking pole position from Jabouille, but after he set a 2'21''65, he was troubled by brake problems and couldn't go as quickly as he would have liked. Perhaps the biggest surprise was seeing Alan Jones way back on the grid, only tenth quickest.

The bumps at Interlagos really affect skirts a great deal, and it was generally considered that whichever car kept its skirts the longest would end up winning. With this in mind, it was obvious that the Renaults and Ligiers were well placed, but that Williams and Lotus were at a disadvantage. They'd had a lot of trouble during practice with these aerodynamic aids. After practice, however, the two English teams said that they'd virtually solved their problems.

Just before the race began, the sun's hot and tropical rays pierced the cloudy sky and bathed the circuit in sunshine. It would make the race hot and long.

Everything is always possible with Gilles Villeneuve. He has surprised onlookers before, and he did it again, taking off like a rocket when the light turned green and leading both Jabouille and Pironi from the row in front of him. In turn, the Ligiers got the better of the slow-starting Renaults. But the latters' good straightline speed soon showed : at the end of the first straight, Jabouille got by Laffite.

At the end of the first lap, Villeneuve was still leading, but closely followed by Pironi, Jabouille, and Laffite. Then came Arnoux and De Angelis close together, and a little further back came the rest, all tightly bunched : Jones, Scheckter, Andretti, Regazzoni, Patrese, Mass, Piquet, Prost, Fittipaldi, Watson, Jarier, Daly, Rosberg, Depailler, Surer, Giacomelli and Zunino. And the 24 th car trickled into the pits, Carlos Reutemann's Williams suffering a broken half-shaft.

Villeneuve was clearly in trouble out front. During the second lap he was overtaken by Jabouille, Pironi and Laffite. And even then his troubles weren't over. The poor Canadian was overtaken by De Angelis and Jones during the next couple of laps, finally ending up in sixth place in front of Scheckter. During the second lap, Jabouille took the lead off Pironi, so one Renault led two Ligiers. But shortly after Didier felt his car's handling deteriorating, and on the third lap, he had to let Laffite past into second place. A lap later he was in the pits for adjustments to be made to the suspension, and when he took to the

→

8 — **Behind Jabouille and Laffite, Arnoux and De Angelis are currently in third and fourth places, but by the end, they're first and second.**

9 — **Villeneuve and Pironi are climbing back up through the field having pitted. Gilles has just overtaken Daly and Surer, and Didier is about to have his turn (12th lap).**

10 — **Piquet's hopes have just been dashed. He returns slowly to the pits on the 14 th lap, his left rear tyre punctured.**

11 — **Pironi continues his climb : he's passed Rosberg and is now battling over seventh place with Mass (17th lap).**

12 — **At the back, the field is livened by a battle between Daly, Rosberg and Zunino on one hand...**

13 — **... And Jarier and the two Alfa Romeos a little further behind.**

14 — **The final detail to be wrapped up : will Prost succeed in passing Patrese ! The answer is yes, four laps before the end.**

Coca-Cola
R.M.O

15 — **Yes sir, a place on the rostrum is great, especially when it's the number one place on the rostrum.**

track again, he was down in 21st position. So the number one Ligier driver took over from his teammate in second position on the fourth lap, right behind Jabouille. And further back, the race looked more settled. Arnoux and De Angelis were disputing third place and then came Jones in fifth place, running alone after having overtaken the two Ferraris which were vainly trying to keep up with the Williams. Eighth was Piquet who'd caught up well from 13 th on the first lap. Nelson had overtaken Mass and Patrese and profited from the problems that befell Andretti, Regazzoni and Pironi.

Behind Piquet, the situation was still somewhat unstable for there was a whole bunch of cars comprising the two Arrows, the Watson and Prost McLarens, Daly, Fittipaldi and Rosberg. Further back came Jarier, and then the final bunch was comprised of Surer, Depailler, Zunino and Giacomelli.

The gap between Jabouille and Laffite stabilised at around 3'', but it would still vary on each lap. On the fast section, the Renault would regularly pull out half a second over the Ligier, but then it would shrink by the same amount in the twisty section where the Renault's turbo power proved to be less manageable than the Ligier's Cosworth. However, it seemed that victory would have to go to one of the Fench brothers-in-law, for they were dominating the race. One weak spot could be the Renault's tyres, for the Ferraris had already changed their Michelins on the seventh and eighth laps. Scheckter wasn't to go much further though, for his engine's oil pressure took a tumble on the eleventh lap and he retired.

VICTORY WOULD SURELY GO TO ONE OF THE TWO BROTHERS-IN-LAW, BUT INSTEAD THEY RETIRED.

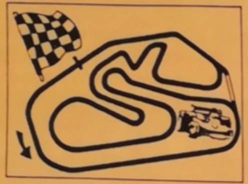
The chances of a Ligier win went up in smoke when Jacques Laffite pulled off the track on the 14 th lap. His engine had simply cut out, thanks to an electrical wire vibrating lose on the bumpy track. Jabouille was consequently alone out in the lead with a ten second lead over Arnoux who was slowly pulling clear of De Angelis. Jones inherited fourth place, in front of the two Arrows, Patrese leading Mass. Prost wasn't far behind, even though his engine hadn't been pulling well in the early stages. Pironi and Villeneuve had pulled up to tenth and eleventh respectively.

Jabouille's bad luck came on the 25 th of the 40 laps when his Renault cruised slowly into the pits with a damaged turbo. That left Arnoux in the lead in front of De Angelis and Jones. Patrese was fourth while Mass had dropped a number of places. Meanwhile Pironi and Prost were gaining on the Italian, and the latter was loath to let them by in the latter stages of the race. However, both Frenchmen got past in the end. Arnoux reeled off the last few laps without problems, took the chequered flag and promptly ran out of petrol, but that didn't upset him. De Angelis took a promising second place, in front of Jones who had only been seventh at the start of the race. Pironi had caught up brilliantly to take fourth place, while Prost and Patrese took the remaining points. Surer finished in an encouraging seventh place in front of Zunino who had driven an unexciting race. Mass and Rosberg made it to the finish in cars which were handling badly.

Interlagos statistics

Date : January 27, 1980
Circuit length : 4,946 miles
Race distance : 40 laps, 197.852 miles
Conditions : Hot and sunny
Attendance : 70,000 spectators

THE RECORD
last five races)
1975 : Pace (Brabham BT 44)
1976 : Lauda (Ferrari 312 T)
1977 :



STARTING GRID

JABOUILLE Renault RE20 2'21''40	**PIRONI** Ligier JS 11/15 2'21''65
VILLENEUVE Ferrari 312 T5 2'22''17	**REUTEMANN** Williams FW07 2'22''26
LAFFITE Ligier JS 11/15 2'22''30	**ARNOUX** Renault RE 20 2'22''31
DE ANGELIS Lotus 81 2'22''40	**SCHECKTER** Ferrari 312 T5 2'23''02
PIQUET Brabham Ford BT 49 2'23''16	**JONES** Williams FW07 2'23''38
ANDRETTI Lotus 81 2'23''46	**REGAZZONI** Ensign MN 180 2'24''85
PROST McLaren M29 B 2'24''95	**PATRESE** Arrows A3 2'25''06
ROSBERG Skol F7 2'25''74	**MASS** Arrows A3 2'25''75
GIACOMELLI Alfa Roméo 179 2'25''80	**ZUNINO** Brabham Ford BT49 2'26''53
FITTIPALDI Skol F7 2'26''86	**SURER** ATS D4 2'27''10
DEPAILLER Alfa Roméo 179 2'27''11	**JARIER** Tyrrell 009 2'27''15
WATSON McLaren M29 B 2'27''29	**DALY** Tyrrell 009 2'28''21

Non-qualified :
Lammers (ATS D4) 2'29''54
Kennedy (Shadow DN11) 2'30''52
Johansson (Shadow DN 11) 2'31''48
Cheever (Osella FA 80) 2'34''52

TIMES IN UNOFFICIAL PRACTICE / OFFICIAL PRACTICE

	Thursday	Friday	Saturday	Sunday	1st session	2cnd session
JABOUILLE	2'27''13	2'23''01	2'44''35	2'27''69	2'21''40	2'23''10
PIRONI	2'29''06	2'22''47	2'40''58	2'30''71	2'22''42	2'21''65
VILLENEUVE	2'31''18	2'24''96	2'38''73	2'29''61	2'23''31	2'22''17
REUTEMANN	2'24''20	2'23''41	2'45''42	2'29''08	2'23''63	2'22''26
LAFFITE	2'23''43	2'23''44	2'41''45	2'35''45	2'23''16	2'22''30
ARNOUX	2'27''86	2'27''29	2'55''95	2'29''96	2'22''31	2'30''08
DE ANGELIS	2'23''86	2'23''30	2'45''43	2'28''22	2'23''48	2'22''40
SCHECKTER	2'27''30	2'24''93	2'49''49	2'29''98	2'23''02	2'23''04
PIQUET	2'30''45	2'23''63	2'43''67	2'44''04	2'23''54	2'23''16
JONES	2'24''65	2'23''10	2'43''35	2'27''31	2'23''38	2'23''77
ANDRETTI	2'25''25	2'22''84	2'41''61	2'28''66	2'23''46	2'23''46
REGAZZONI	2'29''95	2'26''43	–	2'28''57	2'25''68	2'24''85
PROST	2'27''41	2'26''00	2'52''59	2'30''27	2'24''95	2'26''21
PATRESE	2'29''32	2'26''23	–	2'31''60	2'26''22	2'25''06
ROSBERG	2'29''74	2'28''73	–	2'31''30	2'26''14	2'25''74
MASS	2'28''17	2'25''29	2'49''94	2'32''19	2'25''75	2'25''82
GIACOMELLI	2'30''45	2'27''22	2'51''51	2'32''70	2'25''80	2'26''52
ZUNINO	2'31''48	2'26''10	2'58''74	2'33''37	2'26''53	2'29''68
FITTIPALDI	2'28''40	8'10''77	2'44''76	2'32''10	2'26''94	2'26''86
SURER	2'29''36	2'28''86	–	2'31''71	2'30''27	2'27''10
DEPAILLER	2'32''93	2'27''59	3'02''85	2'32''06	2'27''11	2'30''23
JARIER	2'30''62	2'28''76	–	2'32''98	2'28''99	2'27''15
WATSON	2'28''00	2'27''88	2'54''94	2'32''17	2'28''82	2'27''29
DALY	2'31''86	2'31''53	2'51''21	2'32''88	2'28''21	2'28''44
LAMMERS	2'35''89	2'32''21	–	2'34''79	2'29''54	2'29''64
KENNEDY	2'35''43	2'33''08	–	–	2'31''49	2'30''52
JOHANSSON	3'05''18	2'26''82	–	–	2'34''46	2'31''48
CHEEVER	2'43''51	2'35''92	2'48''69	–	2'34''52	2'34''60

THEIR FASTEST RACE LAPS

	TIME	LAP
Jabouille	2'27''78	24th
Pironi	2'28''18	16th
Villeneuve	31''47	36th
Reutemann	–	–
Laffite	2'29''08	12th
Arnoux	2'27''31	22 cnd
De Angelis	2'30''21	16th
Scheckter	2'28''64	3rd
Piquet	2'31''27	-
Jones	2'29''69	30 th
Andretti	2'42''19	1st
Regazzoni	2'35''42	2cnd
Prost	2'30''88	38th
Patrese	2'32''12	17th
Rosberg	2'31''85	35th
Mass	2'33''24	13th
Giacomelli	2'31''11	35th
Zunino	2'31''89	27th
Fittipaldi	2'32''55	12th
Surer	–	-
Depailler	2'32''77	29th
Jarier	2'33''17	16th
Watson	2'33''43	9th
Daly	2'30''54	38th

PIT STOPS AND RETIREMENTS

Reutemann : retired 1st lap, both driveshafts broken
Andretti : retired 2cnd lap, off track
Pironi : stopped 4th lap, adjusted front suspension
Regazzoni : stops on 4th, 6th and 9th laps, fuel system, retired 13th lap, front right suspension broken
Villeneuve : changed tyres 7th lap, retired accelerator blocked 35th lap
Scheckter : changed tyres 8th lap, engine broke 10 th lap
Fittipaldi : stops on 13th, 21st and 29th laps, roadholding
Laffite : retired 13th lap, wire off
Piquet : changed tyres 14th lap, suspension broke and crashed 15th lap
Giacomelli : changed tyres 18th lap
Jabouille : retired 25th lap, broken turbo
Depailler : retired 33rd lap, electrics

CONSTRUCTORS' CUP

1. Williams 13 pts - **2.** Renault 9 pts - **3.** Brabham and Lotus 6 pts - **5.** Skol 4 pts - **6.** Tyrrell, McLaren and Ligier 3 pts - **9.** Alfa Romeo 2 pts - **10.** Arrows 1 pt.

PROVISIONAL WORLD CHAMPIONSHIP CLASSIFICATION

(After the Argentine and Brazilian Grands Prix)

1. Jones 13 pts - **2.** Arnoux 9 pts - **3.** Piquet and De Angelis 6 pts - **5.** Rosberg 4 pts - **6.** Prost, Daly and Pironi 3 pts - **9.** Giacomelli 2 pts - **10.** Patrese 1 pt.

Results

1. Arnoux	Renault RE 20	1 hr 40'01''35, 117.397 mph
2. De Angelis	Lotus 81	22'' behind
3. Jones	Williams FW 07	1'06'' behind
4. Pironi	Ligier JS 11/15	1'40'' behind
5. Prost	McLaren M29B	one lap behind
6. Patrese	Arrows A3	
7. Surer	ATS D4	
8. Rosberg	Skol F7	
9. Zunino	Brabham BT 49	
10. Mass	Arrows A3	
11. Watson	McLaren M29 B	
12. Jarier	Tyrrell 009	
13. Giacomelli	Alfa Romeo 179	
14. Daly	Tyrrell 009	two laps behind
15. Fittipaldi	Skol F7	

Fastest lap : Arnoux, 2'27''31, 120.874 mph (record).

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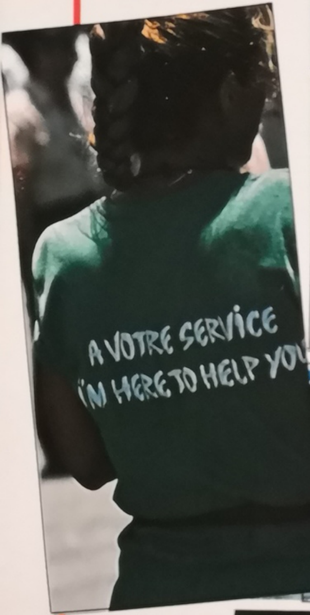
Postcard from Interlagos

No, not for sale, these tasty morsels have been cooked by David Thieme's helicopter pilot.

Service with a smile ?


A VOTRE SERVICE
I'M HERE TO HELP YOU

The McLaren mechanics tease their drivers as usual.

Walking on the track before and after racing can be almost as dangerous as during racing.

At last a car capable of eating up the Interlagos bumps without trouble. Scheckter would have used it willingly.

BOX
LAPS
PUMP OFF
ROSBERG
REGAZZONI
SURER
ARNOUX
LAFFITE
DALY
PATRESE

INTERLAGOS IN PICTURES

1 — Alain Prost : very promising.

2 — An unexpected point for Riccardo Patrese, still a hard man to overtake.

3,4 — Didier Pironi continues to the show promise latent in the Tyrrell last year.

5 — Bad luck Jean-Pierre. At Kyalami perhaps.

6 — The Brazilian Grand Prix 1980 has just started. Villeneuve must be one of the best starters in the business.

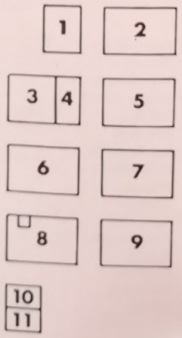
7 — Daly, Fittipaldi, Rosberg. The post-race chat in the Skol camp was quite heated.

8 — The youngest of the Grand Prix drivers is developing quickly. De Angelis's second race in a Lotus reaped a second place.

9 — The Grand Prix, lap by lap.

10 — Life isn't always easy, is it Mr Fittipaldi ?

11 — Ferrari engines don't often show signs of weakness, but the drivers have certainly had their problems of late.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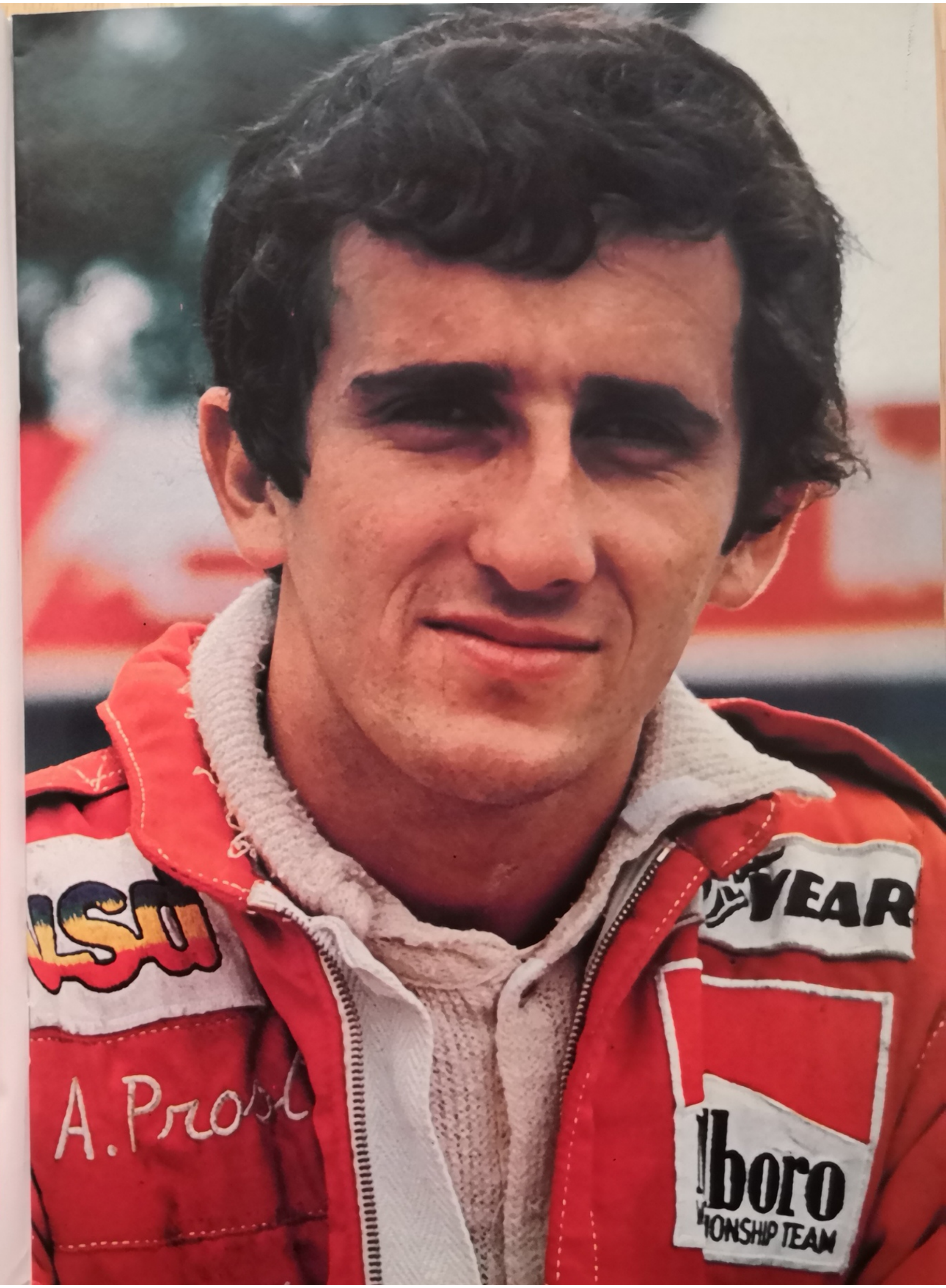
***POSTER** : the Williams secrets and Rene Arnoux on his way to his first win (overleaf).*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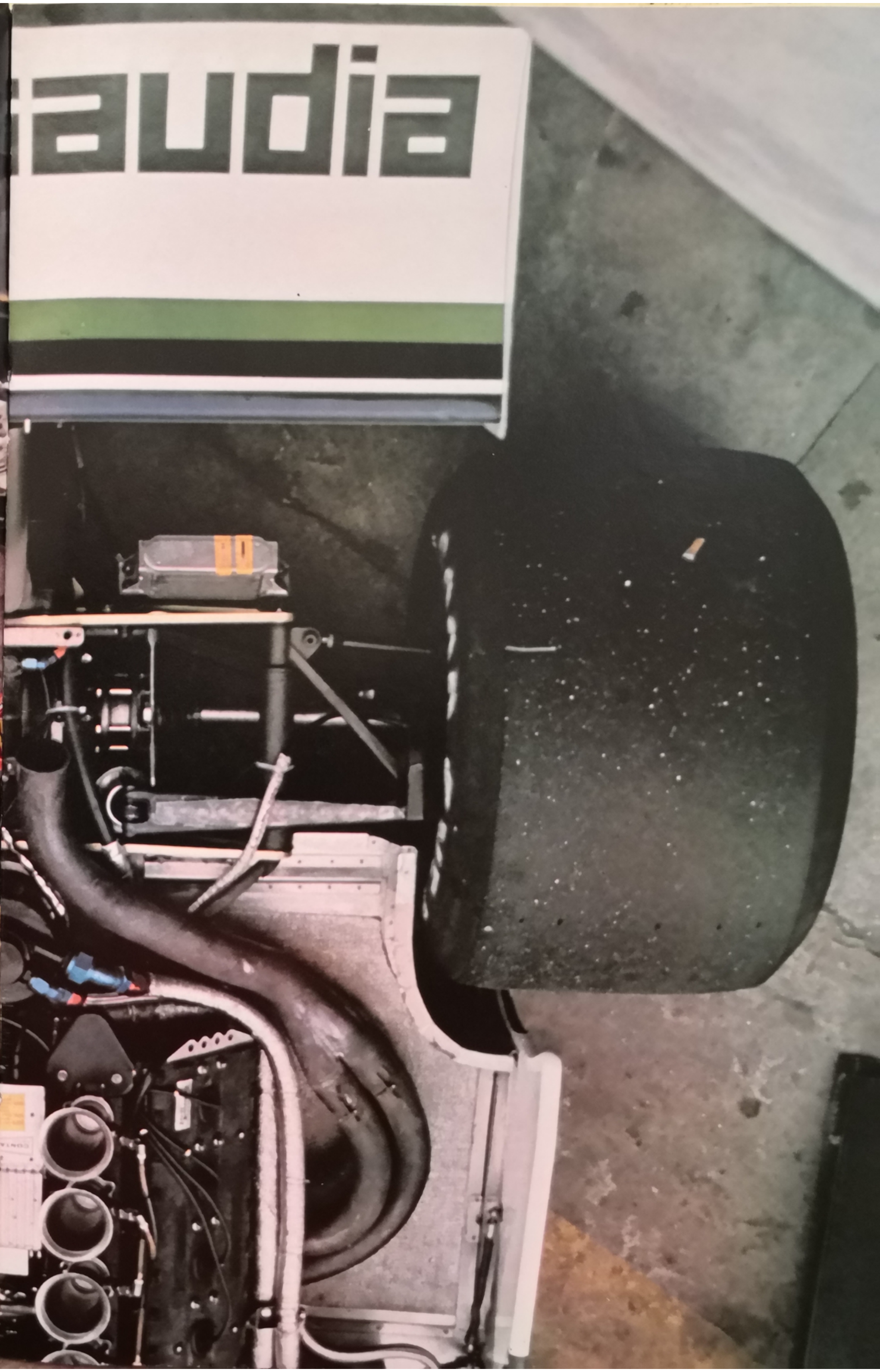

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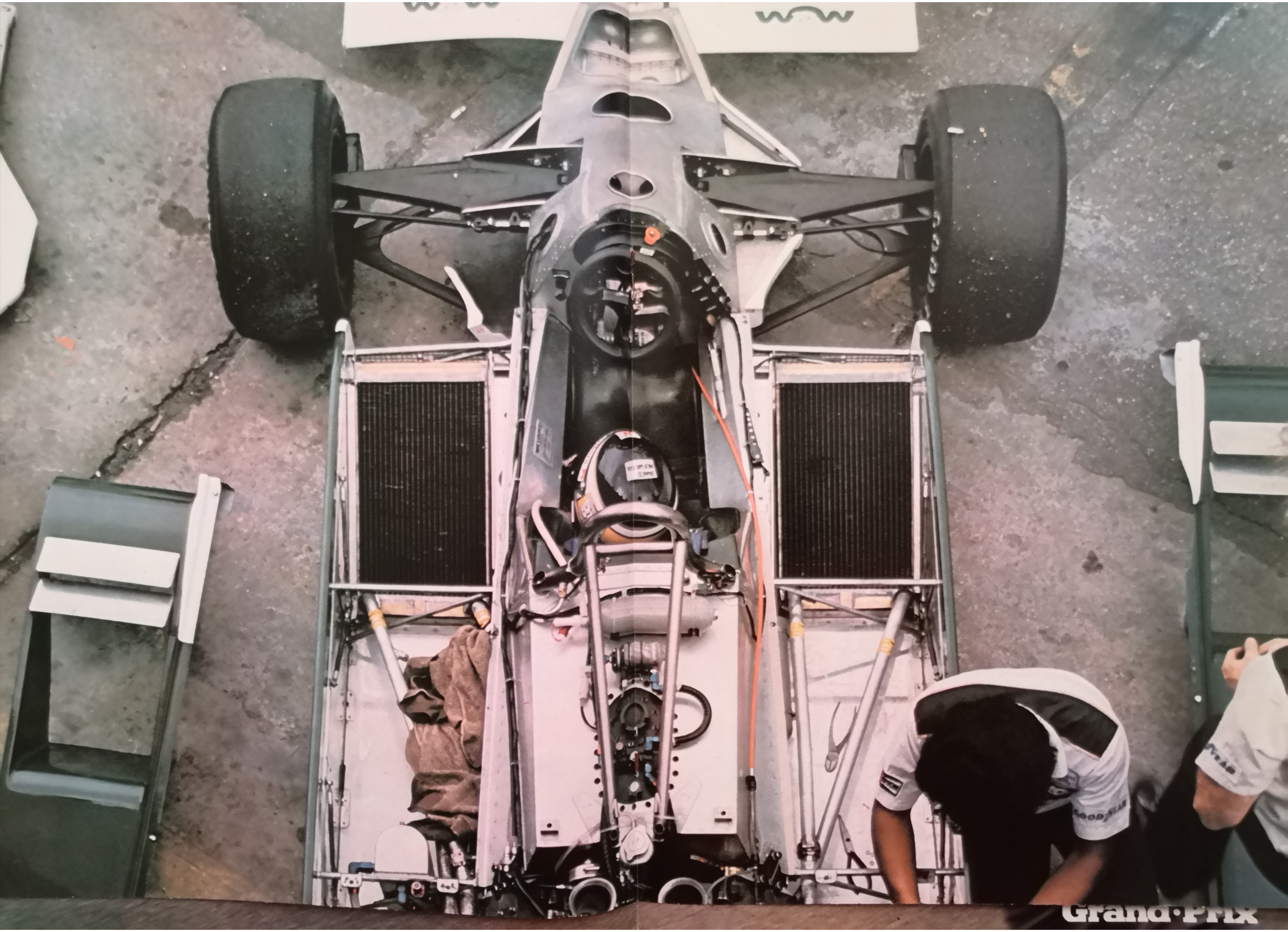
GOODYEAR

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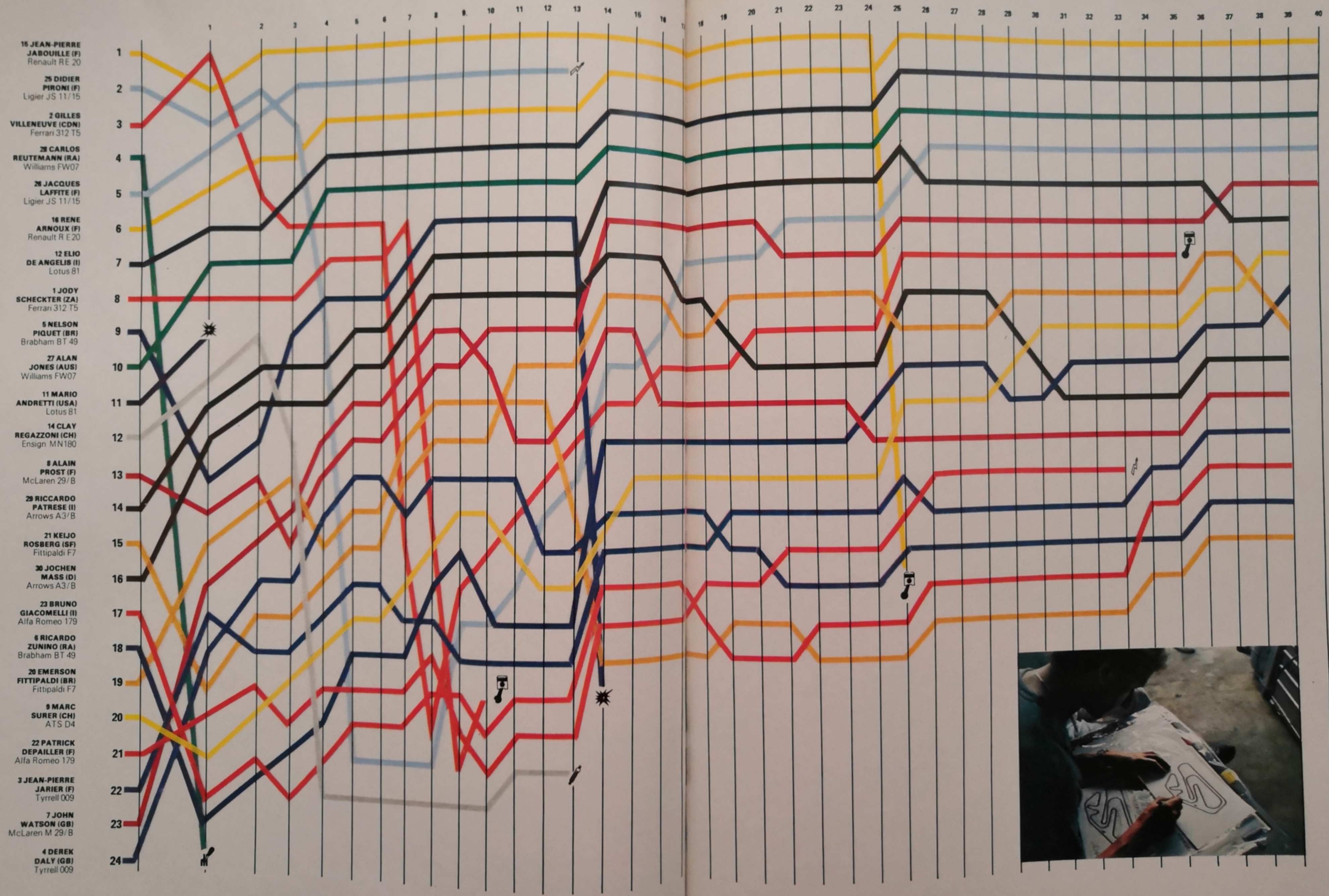
Lap by lap ~ Giro per giro ~ Runde um Runde ~ Tour par tour ~ Vuelta a vuelta ~ Lap by



SKOL
SKOL
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Postcard from Interlagos

A holiday between two Grands Prix for Jabouille and Prost. Sea and surf make for a hard life.

Hand luggage for Jean-Pierre Aujoulet of Gitanes on the way to Brazil: skirts for the Ligier.

It take all sorts of spectator to make a Grand Prix...

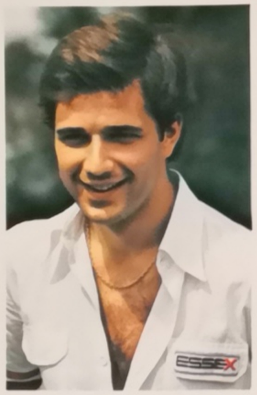
Security guards in the Lotus 81: piranhas.

Villeneuve starts his homeward trek after his Ferrari's engine blew up.

In our last issue, Alan Howell (Arrows) was to be found asleep in one of the cars.

However, the charms of Brazil appear to have a woken him.

M. Bhat (director Elf-Brazil) eating at Renault with some very distinguished guests.



SO CLOSE TO VICTORY

LAST year it was a real effort for him to qualify. This year he aims at the front rows when he's driving in practice. The least one can say is that he's made the right choice by swopping from Shadow to Lotus 81. Now his talent, apparent on occasions last year, is matched with the right equipment. His father had to help him buy his way out of the Shadow team so that he could join Lotus, but that scarcely has anything to do with his driving capabilities. He's still an attacking driver. At Interlagos, Elio was as good as Pironi and Villeneuve in the fast curves, those that seperate the men from the boys.

The evening before the race, De Angelis spoke optimistically but in his usual measured tone of his hopes for the race, having qualified seventh in practice. But if his situation had changed, he clearly hadn't. He was still thoughtful, ponderous, almost cold. ***« My car is fantastic, its roadholding is excellent and it's easy to drive »***.He adn't been so happy the previous evening after the first qualifying session. ***« We suspected the skirts of not working properly, but the mechanics discovered that by the end the shock absorbers on the left hand side were no longer working. The bumpy circuit had worn them out. »***

The next day though, everything was back in order, to such a point that Elio reckoned he'd narrowly missed a spot on the second row. ***« I was held up on my best lap by Rosberg and Zunino. Once I'd overtaken them, I'd lost the half second which would have given me third quickest time. »*** But that wasn't dampening his enthusiasm nor pleasure. ***« Tomorrow is going to be my big day, »*** he foretold. ***« My car is really good. »*** And the next day was a great day for him, because he finished second. But it didn't all go well. At the end of the warm-up, he looked rather worried. ***« My engine isn't running properly. I can't get maximum revs. And we won't have time to change the engine for the race. »*** Fortunately his mechanics found that it was due to a small electrical breakage which restored the Italian's peace of mind just before the race.

De Angelis was the only non-Renault or Ligier driver to run near the front. At the start, he sat three seconds behind Arnoux and watched. Then Arnoux slowly began to draw away and the gap widened to 5'' at half-distance. At that time Elio was in third place, for the two Ligiers had dropped out. He picked up another position when Jabouille retired on the 25 th lap. Elio was at that stage 8''3 behind the new leader, Rene Arnoux, and he tried to lessen the gap. However, at that moment, his tyres started to go off. ***« I caught up Arnoux a little between the 20th and 25th laps, but when Jabouille retired, the car began to lose grip at the front. »***

The Renault's lead grew to 20 seconds, and De Angelis abandoned the idea of trying to catch him. ***« My tyres had gone off so I eased up for a couple of laps in order to cool them. Then I tried to attack again, but failed to pick up any time. My tyres were too far gone. So I eased up fractionally in order not to jeopardise a good result. I was happy to maintain my lead over Jones who was third behind me. »***

So Rene Arnoux crossed the line in the lead, but promptly ran out petrol on his slowing down lap. His victory was judged to the last drop, it could easily have been De Angelis. ***« I could have won, »*** thought Elio. ***« If my tyres hadn't gone off, I would have been able to press Arnoux harder, and he wouldn't have been able to ease up. »*** In other words, Rene would have used more petrol, and he would have run out of petrol earlier. ***« But anyway, I'm not sorry about the way it has turned out, »*** added De Angelis. ***« I'm very satisfied with the result. The Lotus team is fantastic. I'm quite simply very happy. »***

His tyres wern't the only factors to brame. His skirts were almost half used by.
The end, which also explains why he lost ground. A win. Next ime perhaps.

FERRARI : NOT EVERYTHING IS OILED WHEELS

IMMEDIATELY after Gilles Villeneuve's retirement at Interlagos he was already coming to certain conclusions. *« We're going to have to do some work on the tyres »*, he said to one of the Michelin men attached to the team. And turning to technical man Tomaini, he added *« and we're also going to have work on the cars. »* The previous afternoon, after final practice, he spoke on the subject of engines : *« there may well be a hell of a row on Monday at the workshop »*. The fact is that the South American fortnight has been disastrous for Ferrari. The record shows that they've started four times and retired four times. Neither Scheckter nor Villeneuve have seen the chequered flag at either race. And even more disastrous is the fact that in two weekends, the Ferrari team have broken or damaged eight engines.

The reason why Jody Scheckter's engine wasn't changed after the warm-up at Buenos Aires following the discovery of an oil leak was simply because there wasn't another engine to replace it. The leak was more or less bunged up but even so, the engine broke quickly once the race had begun. At Interlagos, Villeneuve broke or damaged an engine on Thursday, another on Friday, and a third on Sunday morning. Falling oil pressure caused Scheckter's retirement during the race. *« So, you're going to ask how morale is in the camp. Well, it's excellent,* joked Mauro Forghieri nervously after the Grand Prix was over. He was nervous too. No doubt a number of journalists had already asked him about the sudden fragility of his engines. Cornered again on the same subject and he seemed somewhat fed up. *« We've had some engine breakages, that's true. But how many have we broken ? Four ? Go and see how many the other teams have broken ? »* But going to compare with other teams didn't really constitute a real and satisfying answer. There may have been a number of breakages around, but the point is that Ferrari engines don't break. Last year, one of the great strengths of the Ferrari Flat 12 engine was its tremendous reliability. Scheckter retired only twice during the season, and even then, not because of an engine breakage. But the engine used in the T5 in South America was basically the same, according to the Ferrari technicians. *« The engine we expected to use in the T5, which is narrower, will only be used when we can bring eight engines to a circuit and they are capable of holding together for nearly 2000 miles »*, Mauro Forghieri told us the evening before the race. *« We tried an experimental engine at Buenos Aires and we'll be trying more at Fiorano. The narrower engine may make its appearance at Kyalami. We're still working on the development of the turbo engine, but we won't be using it until it is capable of doing as well as the current twelve cylinder engine »*. Our information leads us to believe that the turbo engine will be an eight cylinder, and it will be mounted in an entirely new car which will be a complet departure from the 312 T model.

The narrow engine or the turbo : whatever, it's quite obvious that the Flat 12 engine used so far is due to make way for another quite soon. But all the same, its recent fragility is still worrying. The engine hasn't been modified, even the oil system remains identical, and yet something must have happened to make it so unreliable all of a sudden.

Could the problem originate from the oil ? Some specialists advance the theory that it could be the oil that produces too much pressure which in turn jams the exhaust valve open. This appears to be plausible because the engines haven't exactly exploded. Mauro Forghieri wasn't to be drawn on the subject however. *« What do you want me to say ? We've got to dismantle the engines to find out what caused them to break.*

A part from engine trouble, the start of the season for Ferrari also seems to have been upset by the problem of adaptation of Michelin tyres to the 312 T5. *« Forghieri's suspension designs necessitate the use of special tyres, »* our colleague Franco Lini pointed out to us. *« This problem was already obvious when Ferrari were using Goodyears and Firestones. Certain types of tyre simply didn't suit the cars, especially when there wasn't a special technician from Goodyear or Firestone who was specifically attached to Ferrari. »* But today's situation is completely different, for Ferrari and Michelin work very closely together. So it might well be reckoned that the fault lies in the fact that the 312 T5 isn't a real ground effect car, and that it doesn't use its tyres as does the Renault which is a real wing-car. *« I'm sorry that Ferrari didn't come testing with us here in December »*, said Pierre Dupasquier at the start of practice, wondering what sort of trouble Ferrari would have on the Interlagos bumps. *« We just didn't have the time, »*, replied Forghieri. *« There aren't very many of us and of course, we make the whole car : chassis, engines and gearboxes. I can assure you that our Christmas holidays weren't long»*

Jody Scheckter
FIAT
MICHELIN
Agip
CHAMPION

EXTRA

LIGIERS CAN STILL WIN

Gerard Ducarouge pleaded guilty the day after the Brazilian Grand Prix. *« The reason we didn't win was our fault, »* he admitted spontaneously. *« Jacques and Didiers's problems had nothing to do with fate, we were the people at fault. »* Honesty but guilt from a team manager whose cars should have won.

The Ligiers were the Renault team's principal rivals at the Brazilian Grand Prix. At the start, Pironi and Laffite were both in front of Jabouille. The latter took the lead by overtaking both Ligiers and Villeneuve's Ferrari, but only Laffite was able to stay with the Renault team leader. *« I was 110 per cent everywhere, »* he said after wards.

The gap settled down at three seconds around the fourth lap, and yet it would vary at various parts of the track. Jabouille would pick up half a second on the fast section, and Laffite would win it back in the tighter corners.

Laffite tried hard, but on the 14th lap, his car stopped out on the circuit when the engine cut out. Later the mechanics discovered that a wire had come off in the electrical system. *« It's the most stupid way of breaking down imaginable, »* said Ducarouge. *« It's a stupid preparation mistake. »*

When Laffite disappeared, there was no Pironi to take up the challenge. He stopped on the fourth lap, the handling of his car having suddenly deteriorated. The mechanics discovered nothing abnormal, so they loosened off the anti-roll bar, which completely upset the car's handling. That was because it wasn't the anti-roll bar that was causing the problem but a skirt that had jammed in the up position. That wasn't discovered until after the race, which Didier drove in a car that he considered suffered from *« amazing oversteer. »* His bad luck was compounded by the fact that he was unable to readjust the anti-roll bar from the cockpit as normal, *« first of all because he had to drive with both hands, »* said Ducarouge, *« and secondly because the button operating the adjustment was badly adjusted itself. »* Didier, nevertheless, did well to climb back up to fourth place. He finished the race really exhausted. *« But it was my fault, »* he explained as he tried to recover, *« I shouldn't have gone off the road during the warm-up. »* Didier damaged his skirts when he had and impressive spin at the big curve after the pits. The skirts system was quickly changed thereafter, which goes some way to explaining why they didn't work properly during the race. By the end of the race, they were in their right position and working normally. *« It's a shame, »* explained Ducarouge, *« we have a car that is so competitive, It's even competitive when it's badly set up. Didier was taking the big curve flat. We can't bring the JS 15 out because we haven't yet exploited the JS 11/15 to 100 per cent of its possibilities. »*

REGGA'S RIGHT CHOICE

NOBODY could believe their eyes : Clay Regazzoni had the fourth quickest time in the Sunday morning warm-up driving the Unipart Ensign. He was delighted : *« With the roadholding, the car is good. On full tanks, I could take the curve after the pits flat. »* There was one thing that was bothering him though. *« We've still got this fuel system problem. It's been there throughout practice. The mechanics have changed various things in the fuel system, but they haven't cured it. »*

The same problem quickly reared its head during the race, forcing Regazzoni into the pits on the fourth lap. *« It was even worse than this morning. But it's not that bad. It's simply a teething trouble. We weren't able to do any private testing before the car came over here to South America. But I've got a lot of confidence in it, the car is very good, and we've already made progress since Argentina. During the warm-up, I did my time very easily, just took it in my stride without trying to the limit. That's promising. And I had no trouble staying with the rest during the first couple of laps. »*

Regazzoni, relaxed as usual, seems perfectly happy in his new team, for whom he drove in 1977. *« Today, »* he says, *« we have the money which we didn't have last time. Nunn is a good bloke, I've confidence in him. I know that with the right budget we could do as well as Williams. And I prefer to drive for him than Williams for the simple reason that he's more relaxed, it's easier to live with him. He's hired a good technical team. He has the means to do well. I made the right choice. »*

Marlboro
Alain Prost

PROST'S AMAZING DEBUT

ALAIN Prost's sixth place in Argentina was followed by a tremendous fifth place in Brazil. The .youhg Frenchman has certainly started off his career on the right foot, and all the more remarkably so for his McLaren M29 isn't the most competitive of cars.

But while his results are impressive, so is that way that they've been gained. Alain has shown enormous maturity completely obliterating his relative inexperience. He's as happy in his car as out of it, as consistent in practice as in the race. It was ten years ago that such a driver had so promising a Grand Prix debut, and his name was Emerson Fittipaldi. Scheckter and Villeneuve for example, also made people sit up and take notice when they first started, although they also caused a few sparks to fly.

Prost could have done the same thing for he tried to get passed Patrese from the 27th to the 37th lap, and was so shamefully blocked on each occasion that it could have had disastrous consequences.

But while Prost was furious at being so badly blocked, he didn't try to force the pace and chance his arm. He prefered to build up a manoeuvre tactically which he tried out four laps from the end. *« Under braking for the last hairpin right, I went down the inside. Naturally he came across in front of me, so I immediately dived for the outside, just outbraked him which stopped him overtaking me again and also I was turning around the corner. I'd already overtaken twice around the outside, but each time he'd pushed me onto the grass. »*

Prost had been a lot more gentleman y in his conduct towards Pironi when his compatriot had come up to lap him. The young Frenchman simply pulled over and let him passed.

Having succeeded in overtaking Patrese and without any grave mistakes, Prost continued to the finish and fifth place. He'd know from the start that his car was capable of finishing well.- *« I managed to make it relatively quick and at the same time easy to drive, »* he said at the end of the warm-up. *« I lost some places at the start of the race, but that was because my engine wasn't pulling properly.When it cleared, my race really began. »*

LOTUS 81 : ALONG A WELL-TRODDEN PATH

Every four years, they say, Colin Chapman comes up with something revolutionary. But he also knows when to be wise and sensible. His most recent car, the Lotus 81, is a classic and conventional car, and has already proved Chapman right. After the « check » of the Lotus 80 last year, the English constructor has returned to the well trodden path, a path that he opened by introducing the world of ground effect into Formula One.

by Giorgio PIOLA

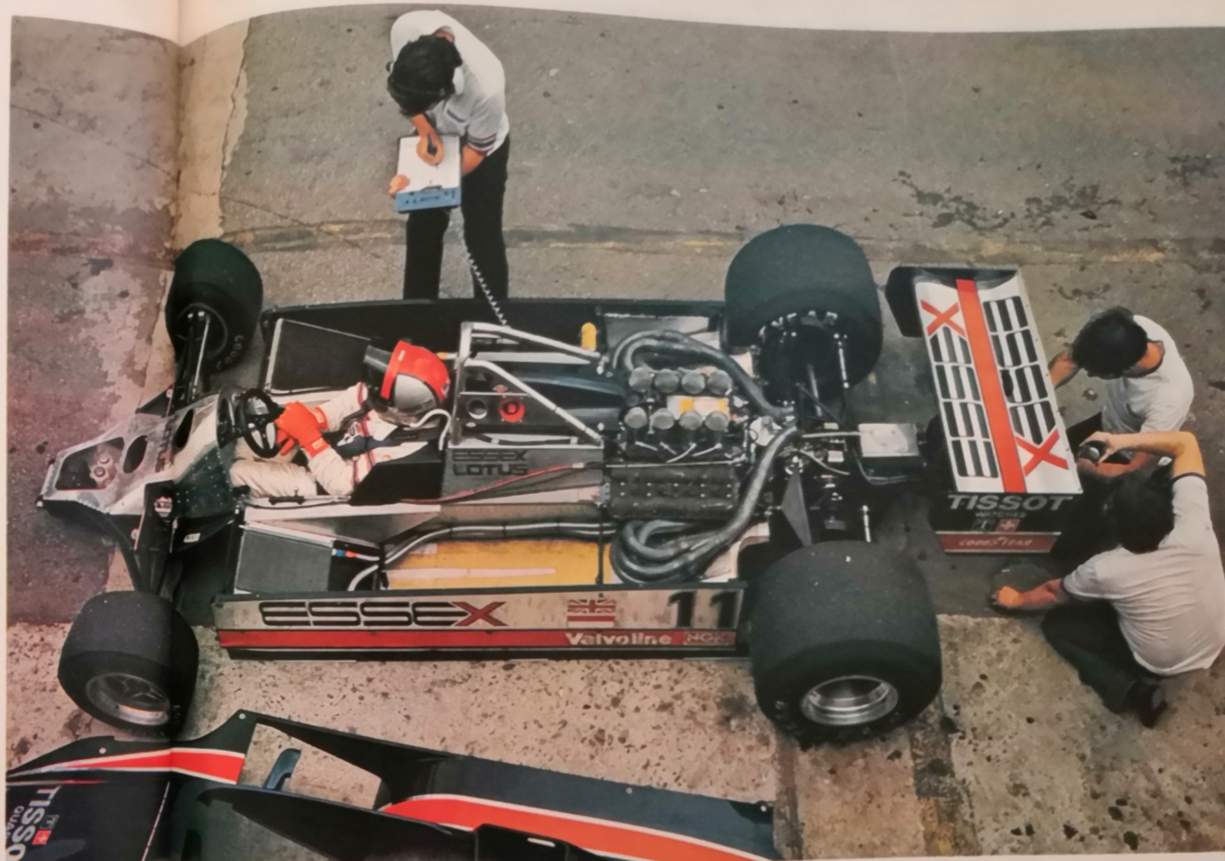
THE 1979 season was one of the worst ever for Lotus. Having given birth to the new generation of wing cars, Colin Chapman wanted to surprise the world again with a very sophisticated car, the Lotus 80. But with sophistication came complication, on both aerodynamic and mechanical fronts. The 80's advantages as shown in the wind tunnel were promising, but they never reached fruition on the track. Chapman's team got the curved skirts working, but the car lacked balance and never really showed well. So it was put away during the season and replaced with the 79. But the latter, as well as being a year old, also lacked reliability which so worried Carlos Reutemann at Watkins Glen that he said ***« I'll never drive a Lotus again »***. At the start of last season, Andretti would have prefered to have driven a development of the Lotus 79 (which turned out to be a Williams) rather than be confronted with the problems of the 80. Now, a year later, he seems to have got what he wanted in the 81.

During the traditional December practice sessions at Circuit Paul Ricard, a Lotus 79 laboratory car appeared, the same car that was used as a spare in South America. This 79 was really a test bed for ideas destined for use on the 81. As we've mentioned in our South American Grand Prix reports, the 81 is very much a conventional wing-car along the lines of the Wiliams. The side pods are built in three pieces, and the monocoque is a Lotus 80. Suspension front and rear is new. The wheelbase has been shortened by around 5 cms in the same way as on the 80 : by slanting the rocker arms towards the back.

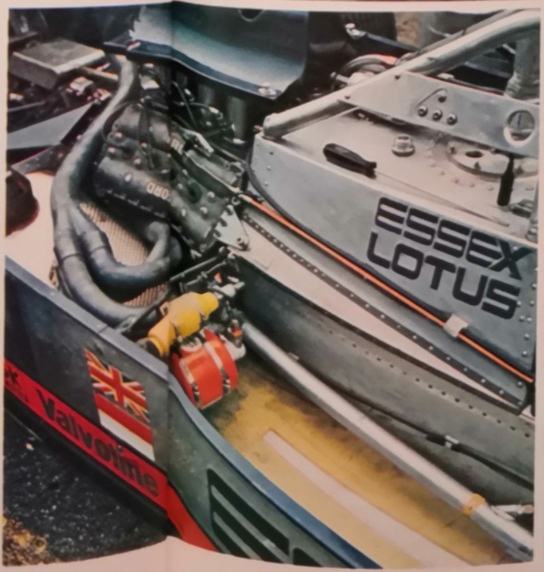
Chapman's team have been particularly concentrating on general stiffness. The side pods on the 81 are very solid, to the extent that Chapman often sits on them. The whole rear part of the car has been redesigned in order to improve air flow from the side pods. The uprights fit into the wheels so that there is as little aerodynamic interference as possible. For the same reason, Lotus intend to use narrower 17 inch wheels in the near future. Still in the search for better air flow around the rear end, the 80 gearbox has been used on the 81. This is a Hewland gearbox but the casing has been remodelled by Lotus and made rather narrower. This gives the impression that the rear track of the Lotus 81 is bigger than other cars, but it is merely an illusion. On most current Formula One cars, the rear tracks are right on the limit concerning width. The 81's brakes, as on all wing-cars, are mounted outboard.

In our opinion it is the bodywork which most resembles the Lotus 80, in spite of the short nose and different dimensions. The upper part is made in one piece which tends to make for problems during official practice sessions when time is so important. With this in mind, it's interesting to note that the Lotus team had trouble changing Andretti's engine between the warm-up and race in Argentina. And in Brazil, De Angelis might have had to start in the spare if his engine had been badly damaged, but in fact it was an electrical breakage. While the new Lotus may be aerodynamically similar to the Williams, it appears to be a lot more complicated.

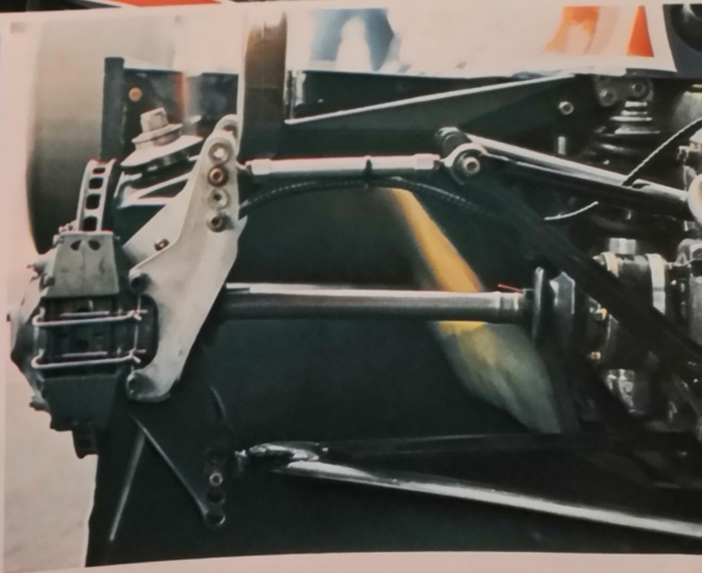
In general, it is thought that wing-cars are developing along the lines of the Williams FW 07, butmaybe the Lotus 81 is only transitory. Is it still not possible that Chapman will surprise everyone by bringing something completely different out of the hat ? After all, he still hasn't forgotten the Lotus 80.



The monocoque of the Lotus 80, a shortened wheelbase, aerodynamic ideas from Williams : the mixture means a return to the top.



The side pods are constructed in three pieces. As on other wing-cars, the narrowness of the monocoque has meant that the extinguisher and the driver's air bottle are now mounted in the side pods.



A narrow gearbox and uprights that disappear right inside the wheels make the rear track look very large. Note the different mounting points on the upright.

Rene has restored the Lamborghini Miura and Jaguar E type himself Apart from the masony, Rene has rebuilt his old farmhouse with his own hands.

THE CHANGING FACE OF RENE ARNOUX

It's hard to imagine he's a Formula One driver when he's playing affectionately with his dog « Lotus » or walking hand in hand with his wife Nelly. He seems more at home in the countryside around Nevers which he so enjoys, or doing odd jobs around the house, than driving a 500 horse-power single seater at the four corners of the earth. But the facts are there. Rene Arnoux won the Brazilian Grand Prix, his first win after 20 Grands Prix. And in the last few months, this success has changed him.

by Eric BHAT

FOR a long time, the reserved and timid Rene Arnoux was considered out of place by his fellow Formula One drivers and others in the world of racing. Wide eyed, he'd stumble through an interview in front of the cameras in his inimitable Grenoble accent. People wondered how he'd ever got into motor racing, let alone how he expected to succeed in it. Some people even admitted to resenting his success, behind his back of course, and apart from a few rare exceptions, no one gave him any help at all in furthering his career.

Examples of this general hostility to Rene Arnoux are included in a book entitled « L'Equipe de France de Formula 1 » (« The French team in Formula One ») which is published by PAC. When the book first appeared it didn't please everyone because it was fairly controversial and stirred things up. But we are going to reproduce a few extracts by way of illustration, even though things have since changed considerably.

« Rene seems weak and vulnerable », said Jabouille who at the time did not consider him a rival, ***« if he wants to succeed in Formula One, he's got to emerge from his own little world, his cave »***. Tambay's offering was simple but cutting : ***« No comment, nothing to say »***. Laffite recognised his similar background but nevertheless said ***« his provincial outlook could be a disadvantage »***. Jarier wondered if he had ***« the determination and sparkle which makes champions »***. Pironi gave him the benefit of the doubt concerning his enthusiasm, but nevertheless commented ***« it's hard for him to appreciate that there is more to this life than simply motor racing, he must understand that »***.

→

The book was published in June of 1978. Rene had just begun his first season in Formula One with the Martini team which was also making its Grand Prix debut. The comments that we've just reproduced go to prove that at that time Rene wasn't considered a real racing driver who was likely to cause his competitors any trouble. Away from his home, his family, his immediate environment, in a word the Martini clan, he didn't really have any real friends. And he didn't really help himself either. He remained withdrawn, hunching his shoulders as though ready to take the criticism which he was sure to bring upon himself, yet unable to ward off. Only with his wife and his great friend and patron Tico Martini did he really come out of himself.

And yet Rene Arnoux has been a tiger from the beginning in his own way. When he was racing in the lesser Formula, it was easy to allow him success because in his own way he was likeable. The public has always been sensitive to Rene Arnoux, they've always forgiven him his clumsiness in front of the microphone. In a way, his shyness and humility has always made him seem more human, true to life and thus more acceptable. They've always cheered him as one of their own kind, less a superstar, even though other drivers were not always so sympathetic.

SO Rene Arnoux has for a long time been a very guarded and introvert person, except with close friends. But he has reason : ***« I've taken some knocks in my time »***, he admits. That's his reason for being quiet, for not letting people get inside him, for closing the door, because those to whom he's been expansive have not always treated him fairly.

He's often kept himself to himself, prefering to be alone or with Tico Martini as his quasi-guardian. Martini is a superb person, and he did his job well. Under his protection, Rene's qualities blossomed. Early in Rene's career, Martini rated him highly and befriended him, guiding him through the ups and downs of motor racing.

Even when Arnoux started racing back in 1973, Martini was helping him, having taken to this young chap who was living in a caravan beside the Magny-Cours circuit, perpetually working on his Formula Renault. He virtually became Martini's test driver, which didn't go down well with the other drivers, especially as Arnoux won races too.

Tico continued to help Rene in 1974, when the driver had no car to race, even although Tambay whom he'd beaten the previous year had gone into Formula Two. Tico gave Rene the task of setting up the Formula Super Renault car which he would drive the following year. Furthermore, our colleague Jabby Crombac, one of Rene's earlier supporters, did all he could to get Rene a Lotus contract. Rene signed, but never even drove a car. Instead he had to be content with a brief and unprofitable flirtation with an outdated F5000 Kitchener.

Tico got Rene back on his feet the next year when the Grenoble driver took to Formula Super Renault, helped by a small budget from Elf, and thanks to considerable success, Rene moved into the Martini Formula Two team the following year. However, 1976 was the year of the Elfs of Jabouille and Leclere, but the championship struggle between Jabouille and Arnoux went right down the wire to the final round at Hockenheim, where Jabouille took the championship. Rene had his revenge the following year when it was his turn to win the Formula Two series, beating teammate Pironi.

SO together Martini and Arnoux made the big step into Formula One. Suddenly, Arnoux was in a different world. He felt that he was plunged into an aggressive circle : the problems of non-qualification, Goodyear's rejection, the RAC refusing him the right to even try and pre-qualify, even his own team's doubts, which perhaps hurt him more than anything. However, he proved himself in North America driving a Surtees, but once again found himself without a drive when the former motor-cycle champion pulled out of Formula One. Again, Rene was at rock bottom.

But Rene did have luck on his side. Tyrrell wouldn't allow Pironi to join Renault, so Gerard Larrousse called on Rene to back up Jean-Pierre Jabouille in the Renault team. That was the start of the change in Rene.

And now, just over a year later, Rene is a different man. He's opened out, shaken off his complexes, now that he feels a strong team working around him. He's quickly gained the respect of his mechanics and the engineers in the team by his seriousness, his presence, his good results and his kindness. That's because he's opened out his personality as he's been accepted by the team. Marie-Claude Beaumont, Renault's press lady, once told us ***« I really discovered Rene and Nelly before the Long Beach Grand Prix when I spent three days holiday with them in California. They're really nice people, always very good-natured and open. You can't get bored being with them »***.

The 1980 Rene Arnoux is at home and in his element. But he's still very attached to his wife, to his local neighbours, his dog « Lotus », his little farmhouse which he rebuilt with his own hands, to restoring valuable cars in his own workshop. In brief, he's most at home in his own little world, because when things became difficult, it was there that he found friendliness and shelter. □

This uncomplicated man finds peace of mind in animals and nature.

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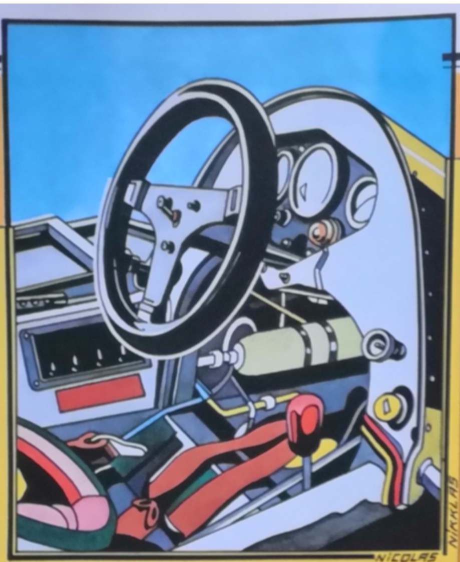

ESSEX LOTUS

Lotus-Ford 81/02 :
Mario Andretti (USA)
Lotus-Ford 81/01 :
Elio De Angelis (I)
Lotus-Ford 79/05 :
spare.

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Reanult RE 21 :
René Arnoux (F)
Renault RE 20 :
spare.

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LIGIER GITANES

Ligier-Ford JS 11-15/01 :
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Ligier-Ford JS 11-15/04 :
Didier Pironi (F)
Ligier-Ford JS 11/02 :
spare.

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The team euphoria was somewhat dampened on the Friday. *« My car is very skittish, »* explained Didier Pironi, *« because the shock absorbers are too hard. Furthermore, my car is bottoming a lot more this afternoon than it did this morning, and I've no idea why ».* And Laffite was complaining of a similar problem. *« My car has become very hard. It almost feels as though it doesn't have suspension at all. »*

On Saturday morning, the Ligiers were still bottoming but the fault had been considerably alleviated with a change of shock absorbers and different aerodynamic settings. Didier qualified on the front row in spite of braking trouble. Laffite had to settle for the third row. There was a leak in the pipe leading to the oil pressure gauge which caused the oil pressure to fall. Laffite thought that his engine had broken, and he lost half a session in consequence.

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SAUDIA WILLIAMS

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Alan Jones (AUS)
Williams-Ford FW 07/05 :
Carlos Reutemann (RA)
Williams-Ford FW 07/04 :
spare.

All three Williams cars were in the same configuration as the O7s at the end of last year. Since Argentina, the rear rocker arms had been reinforced. In contrast to the situation in Argentina, the spare car was not a quick as the race cars. All weekend, all three cars lapped in different aerodynamic and suspension set-up in order to improve the road holding which was not up to normal 07 standard.

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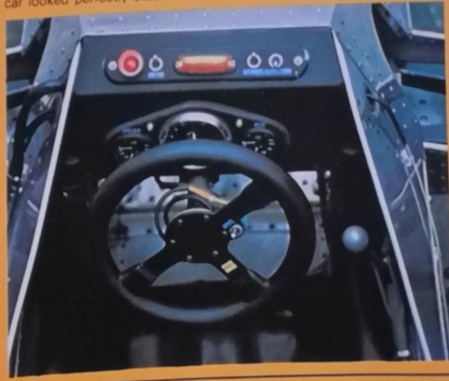
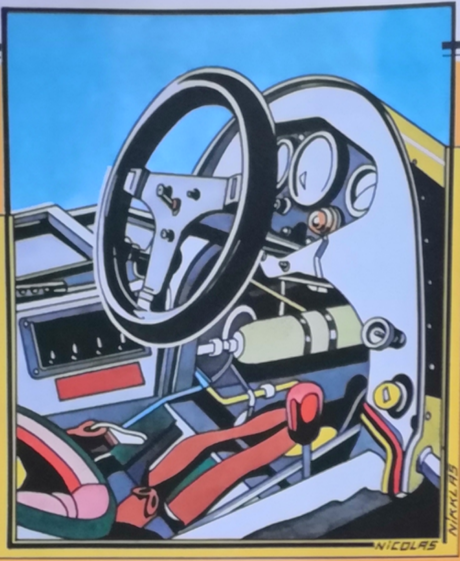
Clay Regazzoni (CH)

The new Ensign suffered fuel feed trouble throughout practice, but all the same, it had been well modified since Argentina for the bodywork no longer vibrated. The car looked perfectly stable in the long fast corners. Clay set fourth fastest time in Sunday morning's warm-up, but feared that the fuel system trouble would rear its head again, and it did. Retirement came when the front right suspension broke.



Cockpits



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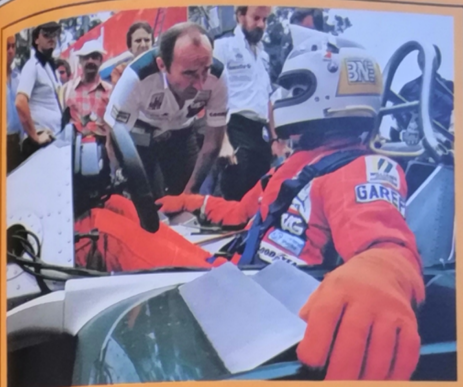

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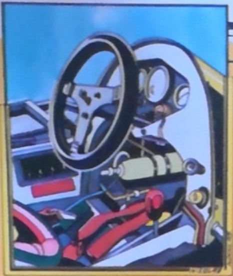


ATS WHEELS

ATS-Ford D4/2 :
Marc Surer (CH)
ATS-Ford D4/1 :
Jan Lammers (NL)
ATS-Ford D3/2 :
spare.

Lammers's car was fitted with new side sections but they were ultimately set aside and the two cars were set up similarly. Marc Surer managed to qualify after Jo Ramirez, the team manager, modified has car considerably. They tried the same with Lammers but it was in vain. The young Dutchman was never able to balance the car properly and he didn't qualify. On Saturday one of Surer's rocker arms broke and cut short his practice, and the rockers were reinforced for the race.
The Swiss driver's roadholding was never very precise but he still managed to finish a good seventh having overtaken Depailler, Jarier, Daly, Zunino (who overtook him at the start of the race) and Mass.

WARSTEINER ARROWS

Arrows-Ford A3/01 :
Riccardo Patrese (I)
Arrows-Ford A3/02 :
Jochen Mass (D)
Arrows-Ford A2/02 :
spare.

There were no modifications to the new Arrows since the Argentine Grand Prix. The A3s quickly showed that they weren't well-suited to the twisty and bumpy circuit. Tony Southgate's car is slim and has little wind resistance which allows it to be fast in a straightline, but it has little downforce. That's a disadvantage on circuits which demand good roadholding. However, it should be very competitive on a circuit such as Kyalami which has a long straight.
Riccardo Patrese and Jochen Mass tried their cars in two different set-ups, neither of which turned out to be particularly efficient. Mass set his car up with less downforce, less angle to the wing. On the other hand, Patrese tried to increase downforce by using oversize front wings. But in neither case was the car absolutely right. Mass's car gave problems in slow and medium speed corners. Patrese's oversteered in left handers and understeered in right handers.
In the race, Patrese was slowed by increasing understeer. Mass's car was similarly affected and his tyres went off. For these reasons, Patrese's single point gained from his sixth place, has to be considered as a present for the Arrows team. Their real satisfaction in Brazil must have been the knowledge that they'd got rid of the gearbox problem suffered two weeks earlier in Argentina.

PARMALAT BRABHAM

Brabham-Ford BT 49/4 :
Nelson Piquet (BR)
Brabham-Ford BT 49/5 :
Ricardo Zunino (RA)
Brabham-Ford BT 49/2 :
spare.

Brazil's new idol is without doubt Nelson Piquet and he'd warmed his public to white-hot interest by finishing second at Buenos Aires, two weeks before. But his weekend at home started badly. He had fuel feed problems during Thursday's unofficial session before the engine broke. On Friday morning he went off the track before he'd warmed his tyres sufficiently, although the car wasn't badly damaged. In the afternoon, both cars suffered again from fuel feed trouble as well as jamming skirts. That was sorted out for Saturday, but then the Brabham team's troubles stabilised somewhat in search of the right compromise of hard springs for the fast corners, and softer springs for the bumps. Piquet qualified ninth while Zunino was 18 th.
The Brazilian was unable to do quite the testing and setting up that he would have liked on Sunday morning because of a clutch problem. The clutch was replaced for the race. After an average start, the Brazilian was cheered by his home crowd up to sixth place, before his left rear tyre punctured. He made it back to the pits at considerably reduced pace, and restarted with new tyres, but his suspension had suffered and it broke after another two laps, sending the car into the barrier. Zunino kept going and took eighth place.

FERRARI SPA

Ferrari 312 T5/042 :
Jody Scheckter (ZA)
Ferrari 312 T5-045 :
Gilles Villeneuve (CDN)
Ferrari 312 T5/044 :
spare.

A new chassis, 045, arrived out in South America from Italy to replace the car damaged when Villeneuve crashed in Buenos Aires. Following this accident, the steering system has also been strangthened.
On the Thursday, Scheckter only did four laps in his race car in order to run in a new engine. Then he used his spare car to work out the settings, and was somewhat surprised to find completely different settings to normal. Then Villeneuve tried the spare having blown up his race car's engine.
On Friday, both cars were set up as per the spare car. When the Renaults began to set quick times, the Ferrari drivers had to admit that the Michelin tyres were certainly capable of going well. However, Scheckter suspected that they didn't absorb the bumps as well as the Goodyears. Villeneuve's car suffered an oil leak from the tank and the pressure dropped. Gilles had to be happy with sixth quickest while Scheckter was fourth fastest. In the Goodyear camp, it was generally thought that good performances were due to Michelin qualifying tyres.

Villeneuve adjusted his rear suspension settings for the final qualifying session and took third fastest time. Scheckter, ***« a victim of circumstances »*** according to Forghieri, dropped back to eighth fastest. Villeneuve broke a third engine on Sunday morning.
Both Ferraris were fitted with a Delta rear wing, unlike that at Argentina. Villeneuve was the early leader of the race but he rapidly lost places before having to stop and change tyres. His climb back up through the field was interrupted by a jammed accelerator. Scheckter also stopped to change tyres, and then retired with a broken engine.

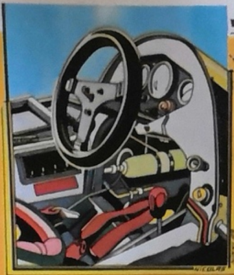
SKOL FITTIPALDI

Skol-Ford F7/01 :
Emerson Fittipaldi (BR)
Skol-Ford F7/02 :
Keke Rosberg (SF)
Skol-Ford F7/03 :
spare.

The Fittipaldi team's sponsors this year are the Brazilian branch of the Skol beer and lager concern, and they might well have hoped for a better showing in front of their home Sao Paulo public.
Emerson's weekend did not go well. It started badly on Thursday when he crashed following a puncture to the left rear tyre. The whole team worked hard to repair the car for the following day.
On the Friday, Fittipaldi and Rosberg began practice with different set-ups in order to find the best, but the Finnish driver went off the track and created two problems. The team had to abandon their twin-setting up programme and concentrate on rebuilding the car from an already depleted stock of parts.

Emerson was stuck in the pits for a while witha water leak, and was also complaining of a stability problem. ***« the car is unpredictable over the bumps ».***
By the end, he'd reduced this problem somewhat, but he still wasn't satisfied with the car's stability. Fittipaldi qualified 19 th fastest, while Rosberg was 15 th on the grid.
At the start of the race, Emerson led Keke, but he was slowed with roadholding trouble. His car's skirts were jammed in the up position. His tyres had also gone off. The Finn upset Emerson by overtaking him under dangerous circumstances, which isn't very wise when it's your team patron.

Cockpits



ALFA ROMEA AUTODELTA

Alfa-Romeo 179/3 :
Patrick Depailler (F)
Alfa-Romeo 179/1 :
Bruno Giacomelli (I)
Alfa-Romeo 179/4 :
spare.

Bruno Giacomelli's encouraging fifth place in Argentina was not improved upon or even equalled at Interlagos. The Alfas' Brazilian showing was uninspiring.
Giacomelli used chassis number 2 as race car, having damaged number 4 in Argentina which became the spare at Interlagos. However, all three cars were fitted with modified rear suspension. The Alfa team also had new side pods similar to those of Williams which were intended to work better with the new suspension. Robert Choulet, the SERA engineer, was on hand in Brazil to supervise aerodynamic adjustments.

From the word go, the Alfa Romeo appeared to suffer over the Interlagos bumps. Giacomelli's monocoque kicked up impressive showers of sparks as it bottomed on the track. On the Friday, Depailler and Giacomelli set their cars up differently, Giaco harder than Depailler, but neither set-up gave real satisfaction. It was even worse for Depailler on Saturday. He was 3'' a lap slower than the previous day. The car was oversteering badly and Patrick's main job was trying to avoid spinning. But Patrick was vindicated when a fault was found within the suspension and when it was put right, the car was tremendously improved.
The two Alfas virtually travelled in convoy at the back of the field. Depailler retired thanks to an electrical problem. Bruno Giacomelli stopped in the pits after his handling deteriorated. He thought the anti-roll bar had broken but in fact he'd suffered a puncture. That's why he spent 53'' in the pits, which is 25'' more than a tyre change should take.

PATRICK
Marlboro

OSELLA

Osella-Ford A1-01 :
Eddie Cheever (USA)

When the track opened on the Thursday, Cheever broke his engine, the third in two races. These engines were bought from Alberto Colombo who was going Formula One at the time, and he'd bought them from Kauhsen. They'd never been checked on a brake.
The Osella had been considerably modified since its first appearance. A heat exchanger had been fitted. The rear wing's side plates had disappeared, and the exhaust pipes ran above the suspension. But the Osella's main problem is still its weight, over 650 kilos, and in the side pods which will have to be modified because they give too much frontal downforce. The car is due for an intensive study course in the Pininfarina wind tunnel in the first two weeks of February.
On the Friday, the heat exchanger was taken off because of temperature problems and Cheever set his best time. On the Saturday in the rain, the Osella showed that it was competitive under those conditions and set 11 th quickest time of the session. But in the afternoon, just after the second qualifying session had begun, a halfshaft broke which prevented Cheever from doing many laps and he couldn't even try and qualify.

CANDY TYRRELL

Tyrrell-Ford 009/3 :
Jean-Pierre Jarier (F)
Tyrrell-Ford 009/4 :
Derek Daly (IRL)
Tyrrell-Ford 009/2 :
spare.

The Tyrrell drivers, Jarier even more than Daly, have little hope in the 009 which is only just over a year old. *« I'm trying really hard for nothing »*, said Jarier again. *« Furthermore, the steering is very heavy. Driving the Tyrrell is physically very tiring »*. The French driver managed to improve the car's behaviour in slow corners by Saturday, for the previous evening it seemed to have little get up and go. But he couldn't rid the car of its understeer. Derek Daly was trying hard in order to avoid non-qualification and went off the road on the last lap of the last practice session, fortunately without serious damage to the car. During the race, the Tyrrells were to be found towards the back of the field, and even then they slowed when their tyres went off.

SHADOW

Shadow-Ford DN 11/02 :
David Kennedy (IRL)
Shadow-Ford DN 11/01 :
Stefan Johansson (S)
Shadow-Ford DN 11/03 :
spare.

Chuck Graemiger, the Swiss who used to build Cheetah sports cars, has been taken on by the Shadow team as engineer. Don Nichols has asked him to modify the DN 11 for Kyalami, and to build a new car for Long Beach.

The Shadows had already undergone a little modification since the Argentine Grand Prix. Their front track, which was the widest at 182 cms, had been reduced. The side radiators had also been repositioned, which had necessiatated new and longer side pods.
One certainly had sympathy for the Shadow drivers as they approached competitivity for the cars seemed very unstable and difficult to drive on the Interlagos track. Neither driver managed to qualify.

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